Saskatchewan
Education

Classroom Curriculum Connections:

A Teacher's Handbook for Personal-Professional Growth

Recycled Paper

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Introduction

Overview of the Handbook

Classroom Curriculum Connections describes a model for teacher-directed professional development in relation to Saskatchewan's Core Curriculum (Connections Model). The three personal and professional growth processes supported in the Handbook are designed to be used either individually or together.

Personal-Professional Growth Processes

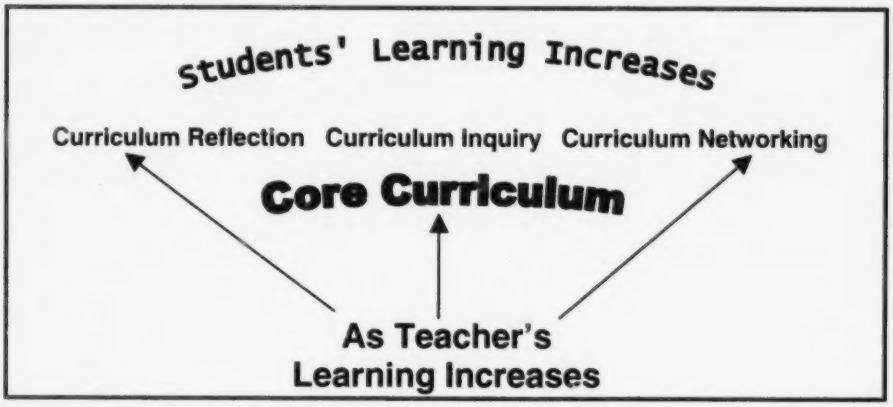
1. Curriculum Reflection
2. Curriculum Inquiry
3. Curriculum Networking

Each process is unique, offering teachers opportunities for different forms of learning. These include opportunities to:

- increase their understanding of teaching/learning situations
- expand their repertoire of instructional and assessment techniques
- strengthen their support systems, including collegial relationships.

The ultimate goal of the activities in the handbook is to strengthen teaching and increase opportunities for student learning. The vehicle for achievement of this goal is the provisions for personal-professional growth that are focused on the Core Curriculum.

The ultimate goal of these activities is to strengthen teaching and increase opportunities for student learning. The relationships in the Connections Model are depicted below.



Purposes of the Handbook

- Support personal and professional growth planning.
- Guide self-directed implementation/renewal processes.
- Provide quick reference tools for many professional development activities.
- Provide processes for assessing self and context in relation to Core Curriculum.
- Increase understanding of Core Curriculum framework and its parts.

Goal: Strengthen teaching and student learning.

The Connections Model

The professional development model in *Classroom Curriculum Connections* has been developed from relevant literature, and the experiences and advice of practicing teachers. The three personal-professional growth processes it contains have been:

- tailored to reflect the Saskatchewan context
- developed to support teachers' yearly program and professional growth planning.

Participation in Curriculum Inquiry, Reflection, or Networking will complement and coincide with what teachers are already doing, as opposed to involving them in additional responsibilities.

This means that participation in Curriculum Inquiry, Reflection, or Networking will complement and coincide with what teachers are already doing, as opposed to involving them in additional responsibilities. (See the following chart, Example of One Teacher's Personal-Professional Growth Plan, which illustrates this connection between regular classroom responsibilities, professional development, and the use of processes in the Handbook.)

Example of One Teacher's Personal-Professional Growth Plan

Name: _____ Grade/Class/Program: _____

1. **During the course of the _____ school year, I plan to focus on the following goals:**
   (a) the use of manipulatives in my mathematics program
   (b) the creative/productive strand of arts education
   (c) Aboriginal content and perspectives

2. **Strategies to achieve these include:**
   (a) use the Curriculum Inquiry Process to implement and evaluate my incorporation of manipulatives; work with a teacher mentor experienced with their use
   (b) participate in a teacher Curriculum Network to support all three goals; use materials in *Classroom Curriculum Connections* for co-operative unit planning related to arts education
   (c) attend Awasis conference; search for and evaluate a wider range of appropriate resources to support cross-cultural education

3. **The following indicators will signify achievement of my goals:**
   (a) completed Curriculum Inquiry Plan; evidence of having implemented plan (student products, video, dayplanner notes, etc.)
   (b) new arts education unit/s that incorporate the creative process
   (c) use of a wider range of appropriate cross-cultural resources, incorporation of these into language arts, social studies, and science lesson plans

Teacher's Signature: _____ **Date:** _____

Each professional development process in the Handbook offers possibilities for:

- teacher growth
- further implementation and/or renewal of Core Curriculum
- collegial and administrative supports.

"As a teacher, the [personal-professional] growth plan was a good way of focusing on new strategies and connecting with others that had similar goals." (A Saskatchewan teacher)

A teacher vignette

I have had the privilege of being involved with professional growth plans as both a classroom teacher and as an administrator. As a teacher, the growth plan was a good way of focusing on new strategies and connecting with others that had similar goals. As an in-school administrator, I have been impressed with the depth of thought that classroom teachers have put into the growth plans and reflections. During a conference about attempts to implement new strategies, one teacher talked about how working with the group strategy of writers' workshop was so different from any previous strategy she had used. The teacher described vividly the second thoughts she had about the strategy and the concern of not knowing the outcome. Then she invited me to see the class in action. In this classroom were real authors striving to find new ways of expressing their thoughts. These children were asking each other for feedback and many were eagerly editing. Both the teacher and children were acknowledging that they were learning together.

For myself as an administrator, this experience was worth more than any structured professional development activity and it far surpassed any professional reading that I might find.

The following chart shows ways that each of the professional development processes in the Connections Model has been focused. While these processes overlap to an extent, the chart shows the strongest foci within each process.

	Curriculum Reflection	**Curriculum Inquiry**	**Curriculum Networking**
Context	**Personal**	**Classroom**	**Collegial**
Descriptors of Process	- reflective - questioning - making connections	- active - implementing - adapting/renewing	- interacting - developing - problem solving
Main Types of Professional Growth	- self-understanding - motivation/vision - critical and creative thinking abilities	- instructional and assessment skills and abilities - program evaluation skills and abilities	- planning skills/abilities - dialogue/discussion abilities - co-operative abilities
Elements of Core Curriculum	- Curriculum philosophy/ direction - similarities/differences among Core curricula	- instructional strategies and processes - assessment and evaluation tools/ techniques	- units/modules - curriculum materials and resources - curriculum philosophy/ direction
Ways Implementation is Supported	Increasing understanding of: - ways teachers interpret curricula - learning processes/ student differences - impact of curriculum on teacher/students - integration and adaptation possibilities	Learning/refining: - instructional processes and strategies - assessment tools and techniques - program evaluation methods	- planning, developing units/modules - pooling, evaluating resources - sharing ideas, experiences, common problems, solutions - providing mutual supports

Charts that depict aspects of Core Curriculum are provided as quick reference tools to support teachers' planning and professional growth.

🕮 Connections to Core Curriculum

A major focus for teachers' instructional and professional development planning is the curricula for which teachers are responsible. As the mandated curriculum in Saskatchewan is the Core Curriculum, its Components and Initiatives are used as the source for examples of professional development targets/actions in Chapters 2-4.

Charts that depict aspects of the Core Curriculum are provided as quick references to be used by both new and experienced teachers. These charts answer common questions and are a means for teachers new to teaching, new to a particular subject area, or new to the province to obtain a background in Saskatchewan's Core Curriculum. See Chapter 1 for this summary information about the Core Curriculum, and related charts and tools useful in undertaking the three professional development processes.

The remainder of the Handbook provides the information needed to undertake Curriculum Reflection (Ch. 2), Curriculum Inquiry (Ch. 3) and Curriculum Networking (Ch. 4).

Organization of the Handbook

The Handbook is based on a developmental model of curriculum implementation where teachers move towards fuller implementation in stages, and at a pace that reflects:

- their experiences, strengths, and challenges
- the degree and quality of supports available.

The chart on the following page provides an overview of this developmental model of implementation. It is described more fully in Assessment Tool 2 (see pp. 80-81).

This handbook has been developed from a model of curriculum implementation that recognizes that implementation is a developmental process, not an isolated or discrete event.

Use of the Handbook

Teachers may:

- choose one process to focus on each year/term
- pull out individual sections or charts as needed
- use the Handbook as a whole.

To Learn More About

- Core Curriculum, see Chapter 1, p. 6.
- Curriculum Reflection, see Chapter 2, p. 19.
- Curriculum Inquiry, see Chapter 3, p. 41.
- Curriculum Networking, see Chapter 4, p. 59.

Stages of Implementation

Note. Dotted lines indicate activities that may happen at all/most stages.

Establishing the Foundations

Creating a supportive environment for student-centred learning, equitable instruction, collegial sharing, teacher risk-taking.

Stage 1: Awareness
Learning about a curriculum's overall directions/approaches and specific contents.

Stage 2: Exploration
Adding units, strategies, and techniques from a new curriculum to an existing program.

Stage 3: Synthesis
Implementing a curriculum appropriately as a whole, understanding relationships among its parts.

Stage 4: Refinement
Implementing a program based on an understanding and incorporation of all Core Curriculum Components and Initiatives, and knowledge of similarities and differences between curricula.

Adaptive Dimension

Adapting instruction, environment, curriculum materials and topics to meet student needs in ways consistent with intentions/directions of Core curricula.

Renewal

Improving, changing, expanding curricula that have been fully implemented; participating in local, regional, provincial curriculum change; addressing results of provincial curriculum evaluations; evaluating aspects of Core Curriculum from a base informed by the Refinement Stage.

Chapter 1: Answering Questions About Core Curriculum

Overview

This chapter provides charts and information about the Core Curriculum framework and Core curricula that can be used as background for engagement with the professional development processes, or referred to as needed.

The information, reference charts, and assessment tools in this section provide summary information about many aspects of implementing and renewing Core Curriculum.

Reference charts contain information about:

- the main elements of the Core Curriculum framework and central directions of Core curricula
- teachers' responsibilities in relation to implementation, renewal, and professional growth
- how Core curricula are developed
- the history of Core Curriculum and its present stage of implementation
- terminology related to Saskatchewan's curriculum implementation/ renewal process
- barriers to implementation teachers may face (a tool to assess your own context)
- supports for teachers (can be used to assess your own context).

Core Curriculum is more than a body of content to be taught. It also includes:

- *particular instructional approaches*
- *assessment methods*
- *attitudes, values, and behaviours consistent with supporting equitable education.*

The following information may be used as background for the remainder of the document or may be referred to later as needed.

1. What does the Core Curriculum Framework Include?

The Core Curriculum framework encompasses Components and Initiatives that describe **what** is taught, as well as **how** this body of knowledge is best taught to ensure that the learning of **all students** is supported. This means that Core Curriculum supports the achievement of educational goals and objectives through a focus on:

- students and contexts
- content
- instruction and assessment
- equitable education.

Reference Chart I

The Core Curriculum framework contains subject areas and other Components, plus Initiatives that work together within the classroom and school environment to ensure that the learning of all students is supported is supported.

While Reference Chart I (on p. 8) lists Core Components and Initiatives separately, in reality, these Components and Initiatives work in an integrated fashion within school programs and environments. For example, the Common Essential Learnings (C.E.L.s), the Adaptive Dimension, and Core Initiatives are integrated into the lessons and units/modules that make up the subject area curricula. As well, school and school division policies, programs, rules, and routines are developed in ways that ensure they reflect and support such Core Initiatives such as Gender Equity, and Aboriginal[1] Content and Perspectives.

Another way this integration of Core Components and Initiatives is achieved is by ensuring that all courses reflect the same overall directions and

[1]The term *Aboriginal* refers to First Nations, Métis, and Inuit peoples.

intentions. Reference Chart II clarifies these directions, intentions, and central features (see p. 9).

Professional responsibility in relation to Core Curriculum involves implementing all Components and Initiatives in ways that reflect the central intentions of Core Curriculum.

For a more complete understanding of Core Curriculum Components and Initiatives, you may refer to the following resources[2]:

- *Actualization of Core Curriculum* (1999)
- *The Adaptive Dimension in Core Curriculum* (1992)
- *Gender Equity: A Framework for Planning* (1991)
- *Gender Equity: Policy and Guidelines for Implementation* (1991)
- *Indian and Métis Education Policy from Kindergarten to Grade 12* (1995)
- *Instructional Approaches: A Framework for Professional Practice* (1991)
- *Multicultural Education and Heritage Language Education: Policies* (1994)
- *Objectives for the Common Essential Learnings* (1992)
- *Our Children, Our Communities, Our Future: Equity in Education, A Policy Framework* (1997)
- *Resource-Based Learning: Policy, Guidelines and Responsibilities for Saskatchewan Learning Resource Centres* (1987)
- *Student Evaluation: A Teacher Handbook* (1991)
- *Understanding the Common Essential Learnings: A Handbook for Teachers* (1988).

[2] These resources have been sent to schools and are available on Saskatchewan Education's website: www.sasked.gov.sk.ca or can be ordered from: Learning Resources Distribution Centre (LRDC), 1500 - 4th Ave., Regina SK S4P 3V7, Phone: (306) 787-5987, Fax: (306) 787-9747, Toll-free Fax in Saskatchewan: 1-800-668-9747, or on-line at http://lrdc.sasked.gov.sk.ca

Reference Chart I: Core Curriculum Components and Initiatives					
	Areas of Study[a]	Locally Determined Options	Adaptive Dimension	Common Essential Learnings	All Core Components Initiatives
Aboriginal Content and Perspectives					
Assessment and Evaluation					
Gender Equity					
Identity, Language, and Culture[b]					
Instructional Approaches					
Multicultural Education					
Resource-based Learning					
Special Education					
All Core Components and Initiatives					

Fabric of Programs, Classrooms, and Schools

[a]includes Required Areas of Study (arts education, English language arts, health education, mathematics, physical education, science, social studies/history) and choices among languages, Practical and Applied Arts, other electives and locally developed courses, if available.
[b]Component/initiative of curricula developed for Fransaskois schools.

Reference Chart II: Central Features of Core Curricula					
Learning theory	**View of knowledge**	**View of learners**	**Teacher's role**	**Processes**	**Teaching methods**
Learners create/ construct knowledge from experience and from reflection on experience. Learning is active and purposeful. Learning involves more than acquisition through memorizing. It requires understanding and use. Individual learners experience the same curriculum and instructional activities differently. What each student learns is dependent upon prior experiences, interests, and abilities, and present level of development. Meaning and relevance are central aspects of learning.	Knowledge is created/ constructed by people in social contexts and is continuously refined and changed. Knowledge takes many forms. Not all forms of knowledge can be communicated through words alone. Knowledge can take the form of ideas and theoretical systems, of skills, abilities and processes, or of values and sensitivities. Knowledge can be expressed in a variety of forms and through a variety of media (e.g., artworks, demonstrations, three-dimensional models, speech, movement, writing, charts, graphs).	Learners come to the classroom with a store of knowledge, skills, and abilities that precedes and extends beyond what is taught in schools. Learners are influenced by their cultural heritage, first language/s, and family backgrounds, including socioeconomic factors. Learners are affected by the public nature of learning environments and need to feel comfortable, safe, and respected to do their best learning. All students are capable of learning and making valuable contributions to the learning of others.	Teachers are program developers, not simply curriculum users. Teachers plan resource-based units and involve students in some aspects of the planning process. Teachers establish a classroom atmosphere that is equitable regardless of student background in relation to culture, gender, income, and abilities. Teachers teach the skills and abilities needed for the active participation of students in their own learning and their growth in all of the C.E.L.s. Teachers teach and involve students in the processes that are used to create and evaluate knowledge.	The areas of study make use of larger processes of exploring, inquiring, creating, and critically reflecting. These processes have some unique and some similar features across subject areas. When these processes are learned, many of the skills and abilities involved can be transferred from one subject area to another. Processes are never completely mastered. Rather, process learning is extended and deepened with new knowledge and experience.	A variety of instructional strategies and assessment methods are used, according to their best match with particular objectives and content, and student needs. Selection of methods is balanced to develop knowledge, skills/abilities, attitudes, and values. Active student participation is emphasized. Participation can take many forms. Methods and content are selected to maximize meaningfulness and relevance, and to develop conceptual understanding. Skills and facts are taught in meaningful contexts.

2. What are Teachers' Responsibilities in Relation to Implementation and Renewal?

Teachers' involvement in implementation and renewal of Core curricula can be enhanced by adequate and appropriate supports.

The following teacher responsibilities are presented as general guidelines. A central understanding of these guidelines is that teachers' actions to implement and renew Core curricula take place in a context of adequate and appropriate supports (see Reference Chart VIII).

Teachers' professional responsibilities are further described by answering three specific questions that include information related to:

- the scope of teachers' Core Curriculum responsibilities
- the pace of implementation of new curricula for individual teachers
- curriculum renewal guidelines and responsibilities.

(a) What is the scope of teachers' implementation responsibilities?

The teacher has a duty to students and society to accept the consensus that is reached through appropriate curriculum-development processes and to implement the resulting curricula. (The Professionalism of Saskatchewan Teachers, *Saskatchewan Teachers' Federation, 1999, p. 12)*

Reference Chart III: The Scope of Core Curriculum Implementation

Educators in Saskatchewan are responsible to develop programs that:

- include all the Components and Initiatives of Core Curriculum (see Chart I)
- reflect the essential features and intentions of Core curricula (see Chart II)
- support achievement of the foundational and specific learning objectives as intended in each curriculum
- engage students effectively with the curriculum content
- demonstrate adaptations to instruction, environment, curriculum materials, and/or content to meet student needs in ways consistent with the central directions and approaches of Core Curriculum.

This understanding is the basis for all activities related to teachers' participation in the curriculum implementation and renewal processes.

(b) What is an appropriate pace for classroom implementation of new curricula?

The essence of a teacher's responsibilities is to move towards full implementation in a process of continuous and self-directed growth.

When teachers undertake curriculum implementation, they engage in a developmental process rather than an all-or-nothing event. The effective implementation and renewal of Core Curriculum is a dynamic process with teachers at different stages along a continuum of implementation activities. (See chart on p. 5 for an overview of these stages and pp. 80-81 for a description of the activities within each.)

It is essential to understand that it is appropriate and reasonable for teachers to be at different stages of implementation/renewal for any given curriculum. It is not appropriate that teachers and school systems remain at the initial stages. Responsibility and professionalism require a commitment to continuous growth that is exercised at all levels, and reflected in adequate and appropriate supports.

An implication underlying all teacher and system curriculum responsibilities is that non-implementation is not an option.

Non-implementation means that a teacher:

- has no accurate or first-hand knowledge of a Core Curriculum Component or Initiative
- has no classroom copy of a curriculum or easy access to one
- demonstrates a lack of openness to examine or change current practices that do not reflect Core Curriculum
- makes little or no use of a curriculum's instructional and evaluation strategies/ approaches
- has not read relevant curriculum guide/s
- makes use of a program/approach which contradicts essential aspects of a Core Curriculum Component/Initiative
- has not had in-service or other forms of professional development in relation to a Core Curriculum Component/Initiative
- works in and/or creates a learning environment that does not support use of student-centred or interactive approaches.

Teachers can best participate in renewal activities related to a particular curriculum at the point where they are fully implementing it, or are close to fully implementing it and can speak from a base reflecting this type of complete, integrated understanding.

(c) *What are the professional responsibilities of teachers in relation to curriculum renewal?*

Like all curriculum frameworks, Core Curriculum requires thoughtful improvements or renewal. This relates to the professional responsibility of reasoned criticism.

Teachers' participation in Core Curriculum renewal might include:

- changing, adapting, improving, or expanding aspects of curricula that have been implemented to reflect individual classroom contexts
- participating in local, regional, and/or provincial curriculum change
- examining the directions, philosophy, or implications of Core Curriculum or aspects of individual curricula from a base informed by the refinement stage.

Reference Chart IV: Guidelines for the Evaluation/Renewal of Core Curricula

Preliminary Evaluation of Individual Elements

A preliminary evaluation of elements of Core curricula is most useful after teachers have given these elements a fair trial. Researchers, and experienced teachers suggest a minimum of three experiences may constitute a fair trial. Fairness would also imply that teachers have implemented these elements as they were intended and have adopted a creative problem-solving approach to challenges that might surface (see *Teacher Vignette*, p. 54, for an example of how one teacher approached such a challenge).

Judgements Related to Curriculum Elements

Teachers can best judge specific elements of a curriculum after implementing the entire curriculum as intended and when they are in, or approaching, the refinement stage (see Assessment Tool 2, p. 80-81). This is because individual curriculum elements work together to form an integrated whole.

Renewing a Curriculum

Curriculum renewal is a challenging professional task that may involve reflection on the balance it offers between effective, equitable education and manageability (e.g., the balance between opportunities for direct instruction and for the active involvement of students).

Reference Chart IV: Guidelines for the Evaluation/Renewal of Core Curricula (continued)

Useful renewal activities include finding ways to streamline curricula to:

- increase their accessibility and clarity
- strengthen the balance within their approaches to instruction/evaluation
- lessen the demands of continuous planning, and of finding and evaluating appropriate resources
- strengthen connections among them, highlighting similar elements in all curricula.

As well, renewal involves updating curricula to better reflect changing social contexts and current research on "best practices".

3. How Were Core Curricula Approaches Selected and Developed?

In feedback from schools and school divisions, some teachers indicate that they are uncertain as to how the directions of particular curricula were established. Teachers who do not agree with particular approaches have suggested they do not reflect the practices of real teachers coping with diverse student populations. This suggests a lack of understanding of the process of Core curricula development.

Reference Chart V: Process of Core Curricula Development

Note. Description is of Core curricula implemented to date. Similar processes are used for renewing or developing new curricula.

1. Directions for each Core curriculum were established by an advisory committee with representation from provincial educational organizations, including strong classroom teacher representation.
2. The advisory committees made use of background papers and documents developed by university professors/educators.
3. These background papers drew upon an extensive body of research, synthesizing what was currently known about the best practices in the subject area.
4. This body of research was developed through studying the work of teachers teaching in diverse situations and reporting the most successful practices that improved student learning in both the short and the long term.
5. When directions were established, all Core curricula were written by classroom teachers with (a) relevant graduate background related to the curriculum being developed and (b) knowledge of the particular developmental levels of students (c) expertise in teaching in the discipline being developed.
6. Curriculum committees reviewed the curricula during their development, recommending improvements and changes.
7. Teachers from all areas of the province, and a variety of teaching situations, piloted or field tested the curricula, making suggestions to strengthen them.
8. The final products contain input at every step from classroom teachers and reflect a synthesis of all that is currently known about best practices, relevant important subject matter, and Saskatchewan contexts.
9. School divisions have a 3-year time frame to implement each new curriculum.
10. Curricula are renewed (updated, strengthened, improved) on the basis of feedback and information from a variety of relevant sources.

The research underlying Core curricula was developed through studying the work of teachers in diverse situations and reporting on those practices that were most successful in improving student learning in both the long and short term.

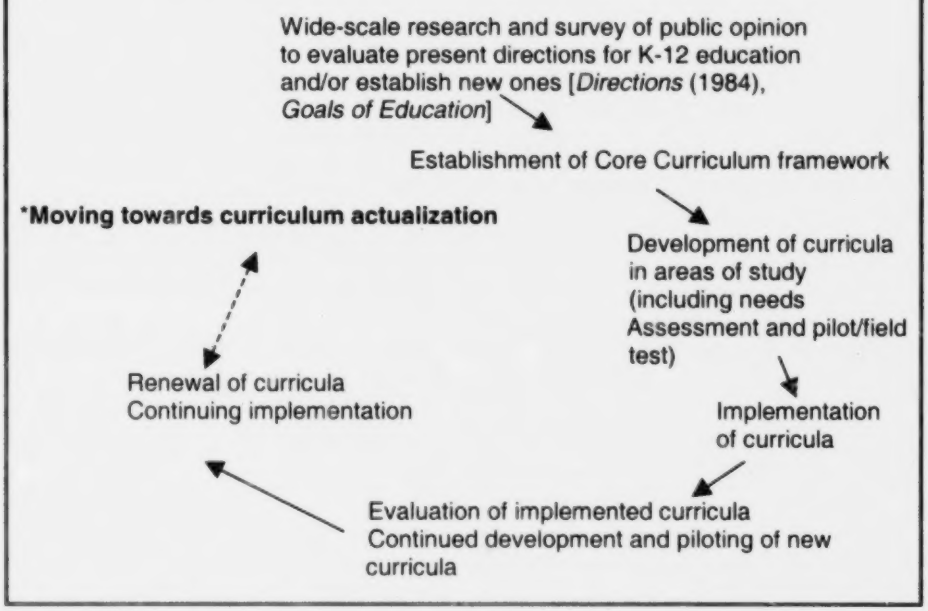
4. Core Curriculum Implementation: Where are we in the Implementation Process?

Classroom Curriculum Connections has been developed to reflect the needs of teachers in the present stage of Core Curriculum implementation, one that is described by Saskatchewan Education's educational partners as moving towards curriculum actualization (effective implementation and ongoing renewal)[3]. Teachers are recognized as being the key persons in this phase of curriculum change and the Connections Model is designed to support their full participation.

"Classroom Curriculum Connections" is designed to reflect the needs of Saskatchewan teachers during the actualization stage and to support their full participation in making Core Curriculum a classroom reality for all students.

Reference Chart VI: Overview of Provincial Curriculum Development Process/Cycle

*Denotes present stage in cycle.


Wide-scale research and survey of public opinion to evaluate present directions for K-12 education and/or establish new ones [*Directions* (1984), *Goals of Education*]
Establishment of Core Curriculum framework
*Moving towards curriculum actualization
Development of curricula in areas of study (including needs Assessment and pilot/field test)
Implementation of curricula
Evaluation of implemented curricula
Continued development and piloting of new curricula
Renewal of curricula
Continuing implementation

5. What do the Terms Related to Implementation Mean?

Teachers' participation in educational discussions and decision making is supported when they understand how new curriculum terminology is being used.

The processes that ensure Saskatchewan's curricula remain current and strong have evolved. So, too, have the terms that describe these processes. While many teachers in Saskatchewan's education system prefer to keep "educational jargon" to a minimum, there are times when they need to know how such terms are used in order to participate in discussions and decision making. For this reason, a quick reference to some key terminology is provided.

[3] See *Actualization of Core Curriculum* (Saskatchewan Education, 1999) for a fuller description of the actualization process.

Reference Chart VII: Understanding some Key Terms

- ***Actualization.*** Saskatchewan's present stage in the curriculum cycle is called Core Curriculum *actualization.* The term refers to effective implementation and ongoing renewal of Core Curriculum. The main focus of actualization activity is classroom practice (teaching and learning). It is recognized that actualization can only be achieved through support and growth at all levels of the system -- provincial, regional, community, school, and classroom.

- ***Effective implementation.*** This concept is intended to give direction to implementation activities within the actualization process. It implies that teachers and school systems are moving through stages of implementation from awareness to refinement and renewal in a continuous manner. Effective implementation involves participation at all levels of the education system, to make the central intentions and directions of Core Curriculum a classroom reality for all students in the K-12 system. As a guiding concept, effective implementation also implies that teachers, schools, and school divisions implement individual curricula as intended, and understand, support, and incorporate other Core Curriculum Components and Initiatives in an appropriate manner. (See Reference Charts I and II.)

- ***Renewal.*** Includes all efforts to adapt and improve classroom practice and curricula to achieve an *evergreen curriculum.*

- ***Evergreen curricula.*** Such curricula continuously evolve to:
  - be responsive to learners' and teachers' needs in changing social contexts
  - respond to curriculum evaluations, learning assessments, and other sources of feedback
  - be reflective of the best that is currently known about teaching, learning, and subject matter
  - incorporate new resources and successful practices as these are developed.

  Evergreen curricula are now possible because of completion of a significant developmental phase and because of technological developments that increase ease of information sharing.

6. What Barriers Do Teachers Report Experiencing Concerning Implementation of Core Curriculum?

The implementation of Core curricula is both a demanding and a rewarding process. Teachers are best supported when both the challenges and the benefits of participation are acknowledged.

The Core Curriculum framework is based on forms of teaching that are both demanding and rewarding. Core Curriculum's instructional directions are student-centred, resource-based, and sensitive to culture, gender, and socioeconomic status. Recent provincial learning assessments and curriculum evaluations demonstrate there are many benefits to student learning as the result of teachers using these approaches. However, for many reasons, not all teachers are incorporating the instructional and evaluation practices as intended. Saskatchewan teachers have identified particular interactions between characteristics of individuals, contexts, and curricula as barriers (see Assessment Tool 1, p. 16).

Using Assessment Tool 1

Recognizing barriers

To assess your own experiences using this tool, rate each of the factors as a *Barrier* or *Not a Barrier.* When you perceive a factor to be a barrier, or sometimes a barrier, think about how you would answer the following questions:

- "In what context/s do I experience this factor as a barrier?" (e.g., my Grade 9 class but not my Grade 10 class)
- "What aspects or circumstances in my teaching context contribute to my experiencing this factor as a barrier to implementation?" (e.g., limited teaching experience).

Describe the nature of the context/s or related circumstances as applicable in the space provided.

Identifying supports

Factors that are experienced as barriers may be overcome, in part, by understanding how they relate to particular contexts/aspects of your present context. As well, further personal-professional growth and acquisition of appropriate supports may help you overcome most barriers (see information about supports in the following section).

Responsibilities for implementing Core Curriculum are shared by teachers and administrators working at all levels of the educational system. As well, students and parents/guardians have important roles in successful learning. Teachers, individually and as groups, need concrete demonstrations "that we are all in this together".

Networking Connection. An initial activity in Curriculum Networking is for individual members to think about their needs and concerns and what they would like to focus on in networking dialogues and group problem-solving activities (see Chapter 4, "Using a Pre-Meeting Questionnaire," p. 62 and Section 2: "Dialogue, Sharing, and Problem Solving," p. 68). Teacher Curriculum Networks are good sources of support to eliminate barriers and implement Core curricula. First, you may want to focus on this assessment tool as an individual and then use it as a focal point for dialogue and group problem solving.

All the professional development processes in the Connections Model have been developed with a recognition of the barriers that some teachers experience. Each process offers opportunities to address the challenges of Core Curriculum implementation in teacher-sensitive ways.

Assessment Tool 1: Potential Barriers to Effective Implementation as Identified by Teachers

How do these barriers apply to you? Describe the nature of your context for those factors you identify as a barrier and/or describe other circumstances that contribute to making this factor a barrier.

1. ***Complexity and Magnitude of Change***. Teachers have described the work of implementing a number of new curricula in a short time span as "almost overwhelming". This is particularly true of elementary teachers who are responsible for implementing all/most of the Required Areas of Study. All teachers mention the demands of planning for resource-based learning and the challenging nature of many instructional/evaluation approaches.
   ☐ ***Not a Barrier*** ☐ ***Barrier***
   Nature of Context/Related Circumstances:

2. ***Conflicting Philosophies***. Some teachers do not find their own beliefs, values, and preferred teaching practices represented in the Core Curriculum philosophy and are reluctant to examine what they feel has worked well for them in the past.
   ☐ ***Not a Barrier*** ☐ ***Barrier***
   Nature of Context/Related Circumstances:

3. ***Fear of Failure***. Some teachers inexperienced with more student-centred instructional approaches may fear they will not be able to do "a good enough job" of implementation and fear negative professional consequences.
   ☐ ***Not a Barrier*** ☐ ***Barrier***
   Nature of Context/Related Circumstances

4. ***Accountability Anxiety***. Some teachers fear that new approaches to student evaluation, such as using authentic assessment techniques, will not give them sufficiently clear information to demonstrate student progress.
   ☐ **Not a Barrier** ☐ **Barrier**
   Nature of Context/Related Circumstances:

5. ***Time-consuming Approaches***. Student-centred instructional practices take more time. Teachers fear they will not adequately complete all required units without including greater numbers of direct instruction lessons.
   ☐ ***Not a Barrier*** ☐ ***Barrier***
   Nature of Context/Related Circumstances:

6. ***Challenges to Classroom Management***. Student-centred instructional approaches require student self-discipline and, for some teachers, new classroom management strategies and systems. As well, the increase in student diversity places more demands on teachers' management abilities and energy.
   ☐ ***Not a Barrier*** ☐ ***Barrier***
   Nature of Context/Related Circumstances:

7. ***Parental Pressures***. Conflicting community and parental pressures related to some aspects of Core Curriculum exist or are perceived to exist.
   ☐ ***Not a Barrier*** ☐ ***Barrier***
   Nature of Context/Related Circumstances:

8. ***Non-supportive Leadership.*** Some teachers perceive their administration as not supportive of and/or knowledgeable about the instructional approaches in some Core curricula and report feeling pressure to adopt approaches inconsistent with a curriculum's approaches/directions.
   ☐ ***Not a Barrier*** ☐ ***Barrier***
   Nature of Context/Related Circumstances:

9. ***More Time for Full Implementation***. The magnitude of the Core Curriculum initiative requires a focus on long-term change -- teachers need more time to approach full implementation.
   ☐ ***Not a Barrier*** ☐ ***Barrier***
   Nature of Context/Related Circumstances:

7. What Kinds of Supports are Necessary for Teachers Involved in Implementation/Renewal?

Teachers making the commitment to personal and professional growth through Core actualization processes should be supported by administrators in ways like those described in Reference Chart VIII (see next page). It should be noted that key supports on this chart are not optional, but rather ones that every teacher requires.

"When difficulties [in implementing co-operative learning] arose, and they did, I discussed them with colleagues. With their encouragement, my obstacles seemed not so daunting."
(A Saskatchewan teacher)

A teacher vignette

As a beginning teacher, I was like most that experimented with various instructional techniques from Core curricula. One strategy that I found intriguing was that of co-operative learning. My motivation was high, but implementing co-operative learning takes more than motivation -- one has to research any particular teaching strategy to ensure success.

Being in a community school meant that co-operative learning was a way to teach academics, while attending to personal and social objectives. More than that, co-operative learning capitalized on healthy race relations. I found out there is a wide range of research supporting the benefits of co-operative learning.

Support from my principal was high. She gave me the opportunity to take part in professional development opportunities to learn how to implement this strategy. Alas, I found initial challenges that made me wonder if this was a worthwhile teaching technique -- students finished at different rates, argued, fooled around, and in general, refused to co-operate! I found myself going home with a headache and ready to give up this strategy.

But, I did not give up. I had support from my principal and I persevered. It took time, but when difficulties arose, and they did, I discussed them with colleagues. With their encouragement, my obstacles seemed not so daunting. Eventually, the strategy became one of my favourites.

Teachers and/or administrators can also use Reference Chart VIII to:
- assess their own contexts for the level and types of supports provided
- plan for the acquisition or implementation of additional supports.

Links to these charts and tools can be made as they are felt to be useful, within or when relevant, to the activities in Curriculum Reflection, Curriculum Inquiry, and Curriculum Networking.

Summing Up

When teacher commitment is met by administrative support, students are the ultimate beneficiaries.

The effective implementation/renewal of Core curricula is not a choice but rather a responsibility of all educators. However, teachers do have choices about how they will fulfill this responsibility. The extent to which teachers enter into the actualization process wholeheartedly -- with genuine commitment and adequate support -- will also be the measure of their growth, enjoyment, and feelings of personal and professional satisfaction.

Reference Chart VIII: Supporting Teachers in Effective Implementation/Renewal of Core Curriculum

Essential Supports

- ***Curriculum guides.*** Individual classroom copies of each curriculum guide from which a teacher is responsible to teach.
- ***Resources.*** Sufficient and appropriate accompanying resources and a system for fair sharing among teachers in a school/division.
- ***Professional development.*** Ongoing professional development activities that support teachers moving from the awareness level of a curriculum to full implementation.
- ***Leadership.*** In-school and central office administrators who are knowledgeable about, and supportive of, the central approaches and intentions of Core curricula. Acknowledgement of the magnitude and challenges of implementing Core Curriculum and its effects on teachers.
- ***Parent education.*** A system and materials for parental education about Core curricula.
- ***Supportive climate.*** A supportive climate where teachers are encouraged to take instructional "risks", learn new strategies, and develop new classroom-management systems, without fear of negative consequences. Administrative support for teachers' engagement in self-directed personal and professional growth.

Important Supports

- ***Appreciation and recognition.*** Forms of recognition for teachers' committed actions as a regular feature of teachers' working conditions. Some examples include:
  - administrator's appreciative comments related to a teacher's demonstration of instructional practices congruent with Core curricula
  - offers of support for teachers' participation in various professional activities related to the curriculum areas in which they are interested
  - appointments and other forms of positive recognition, such as awards from STF Special Subject Councils, for teachers who are committed to continuous professional development, are exemplary teachers, and show curriculum leadership.
- ***Teacher networks.*** Teacher curriculum networks supported at the central office level and facilitated by in-school administrators.
- ***Classroom demonstration/peer coaching.*** Consultants, teacher mentors, and/or catalyst teachers available for classroom demonstrations, workshops, and advice related to key aspects of Core curricula. Peer coaching, team teaching, and classroom exchanges are facilitated and supported.

Obtaining Curriculum Resources

- Curriculum guides for Saskatchewan teachers are available at no charge from the Learning Resources Distribution Centre (LRDC)[4] when ordered through the Director of Education.
- Each curriculum guide is accompanied by an annotated bibliography which serves as a starting point for resource selections. Bibliographies and annual updates of resources are sent to schools, are available on Saskatchewan Education's Web site at www.sasked.gov.sk.ca/curr_inst/iru/onlbib.html or are available for purchase from the LRDC on-line at http://lrdc.sasked.gov.sk.ca
- Some professional development supports provided by Saskatchewan Education include:
  - curriculum orientation in-service for Elementary Health Education available on-line
  - teachers available for mentoring in K-12 Mathematics
  - workshops by catayst teachers on unit planning, resources, and other topics related to Middle Level Health Education.

[4] See telephone number, fax numbers, and other ordering information in Footnote 2, p. 7.

Chapter 2: Curriculum Reflection

Overview

What?

Reflection involves both thinking back and looking forward -- understanding past events and imagining future possibilities.

Curriculum Reflection is a process that involves individual teachers in thinking about their beliefs, values, and abilities and the ways these affect, and are affected by, students, curricula, and school/community contexts. It also involves teachers in recording their thoughts and questions in a personal notebook or journal. Teachers' reflection records may incorporate different types of writing, drawings, or diagrams as well as pictures, cartoons, or newspaper clippings that hold meaning for their teaching/learning.

How?

By using the questions and tools in this Handbook and other resources, teachers are supported in learning more about themselves, their students, and the curricula for which they are responsible. Reflecting on connections between a curriculum and one's classroom may involve:

- **exploring** one's own values, feelings, and beliefs about teaching and learning
- **increasing understanding** of one's students, and school and community contexts
- **developing knowledge** of key characteristics of Core curricula, the Core Curriculum framework, and a particular curriculum's contents (intentions, objectives, instructional and evaluation approaches)
- **critical thinking** about the ways curricula, personal beliefs, and local contexts interact to support or deter student learning
- **creating and evaluating** alternative responses to challenges.

Reflection does not necessarily mean thinking serious thoughts -- a humorous approach to a teaching dilemma can also result in new insights.

Tips for Making the Reflective Process More Rewarding

- use a journal and personalize it in some way, such as incorporating visuals that symbolize the nature of teaching or quotes that are especially meaningful or inspiring
- write in the personal voice; consider your journal a private, safe place to record your thoughts
- write thoughts as they come, without censorship -- include frustrations and anxieties
- draw diagrams and concept maps when useful
- ask lots of questions -- often having good questions is more productive than drawing conclusions too quickly
- record positive moments and small victories
- use humour -- your own personal brand -- it can help you view experiences in a different light and you will enjoy rereading your reflections
- collect cartoons, comic strips, and newspaper headlines that relate to aspects of teaching; incorporate these as starting points for describing your own experiences and thoughts.

Reflective questions are central elements of the Curriculum Reflection process, as well as central to this chapter. They can be used in every stage of the Curriculum Inquiry process and support participation in Curriculum Networks.

Why?

Some benefits of reflective practice are described in the accompanying chart.

Adding up the Benefits of Curriculum Reflection

Increased understanding of Core Curriculum as a unified whole (in addition to)

+ renewing commitment
+ fulfilling personal purposes for teaching
+ strengthening self-knowledge
+ gaining understanding of what works and why
+ seeing similarities between curricula across subject areas
+ understanding how curriculum contents and methods affect diverse student populations
+ growing in critical and creative thinking abilities
+ feeling confident and accountable

= **Stronger Teaching and Greater Opportunities for Student Learning**

How Does Reflection Differ From Other Types of Professional Development?

Reflection is a personal process of increasing self-understanding in ways that support students' learning.

Reflection, *like* most professional development processes, gives back what we put in. *Unlike* other professional growth processes, it focuses more on the 'personal' in the personal-professional development duo.

The reflective process supported in the Connections Model (re)connects teachers to their own feelings, beliefs, and desires. It is premised on the idea that growth begins in the interaction between contexts and personal motivations -- ones that we recognize and consciously use. The central focus of reflection in this Handbook is on the meaning that classroom events and curricular elements have for teachers as unique individuals with particular experiences, interests, and abilities.

Organization of the Chapter

The four areas for reflection are not necessarily intended to be all used within one school year.

This chapter describes four areas for Curriculum Reflection. These include areas that support self-understanding in relation to:

- personal purposes and professional goals
- professional commitments and teaching abilities
- teachers' learning needs/students' learning needs
- making Core Curriculum work for you.

Material in each area includes:

- ideas to stimulate thought
- questions for reflection
- connections to Core Curriculum, useful for professional growth planning
- connections to relevant Curriculum Inquiry or Networking activities.

The four areas are not necessarily intended to be used in one school year. Teachers may select from among them to suit their needs and interests in any one school term.

Reflection Focus I: Personal Purposes

This section offers opportunities to examine your beliefs about why you teach and to revise/strengthen your understanding of what sustains you as a teacher. There are many reasons why people become teachers and stay in teaching. Some purposes that teaching fulfills may be stronger than others in terms of:

- sustaining feelings of personal satisfaction
- maintaining a balance between personal and professional lives
- avoiding stagnation or "teacher burnout".

The most important element of a sustaining purpose is that it is yours; that is, it comes from within and reflects who you are and what abilities and experiences are unique to you.

Choosing teaching as a career often coincides with larger moral and social visions, such as the need to contribute to making the world a better place. As well, people choose teaching because they are sociable, people-oriented, and want the rewards of working with and supporting others. Such reasons are genuine and valid but, according to some current thought on teacher development, may be too general to sustain teachers in the long haul. For example, Borich (1993) suggests that real and sustaining purposes:

- come from our personal backgrounds
- are connected to our past experiences
- reflect our individual interests and particular gifts
- describe something specific, concrete, and manageable.

Compare the following two types of purposes for teaching. Reflect on the differing ways they may affect a teacher's continuing commitment and energy levels.

Types of Purposes	
General Professional Purposes	**Individual, Personal Purposes**
To: • maximize student potential	To: • help at least one student each day to learn something that will make him/her feel more successful as a learner
• build student self-esteem	• reach and offer some form of positive recognition to as many students as possible each day • use humour in all my classes and value and teach students to use their humour appropriately
• support social justice	• teach the effects of prejudice and racism, and ways to overcome and eradicate them
• impart knowledge	• help students in my classes and extracurricular activities to appreciate the beauty and intricacy of the natural environment and understand their interconnectedness with it

Developing personal purposes for teaching from your own background and unique experiences can have many advantages. For example, these purposes can:

- *reflect your present abilities*
- *be specific, concrete, and achievable*
- *be shaped to suit challenging contexts and situations.*

General, professional purposes can serve as the basis for professional ethics or as guiding visions, but they are often too vague or all encompassing to motivate the specific actions of daily life in the classroom. Their idealized nature could also contribute to teachers' feelings of inadequacy because their achievement is neither clear nor permanent.

Personal, individual purposes, however, have several advantages. They can:

- guide daily interactions in the classroom
- be shaped to suit the strengths and degree of teachers' experience
- be changed as teachers grow professionally or their teaching contexts change
- be linked to specific elements of curricula for which teachers are responsible.

A novice teacher may be satisfied and motivated to grow personally and professionally in the effort to reach just one student each day, while a more experienced, confident teacher may attempt a more all-encompassing purpose related to her/his strengths and interests.

Reflections

Take a few minutes to reflect on some purposes that, if implemented in your classrooms/classes, would give you a personal sense of accomplishment. In your own words, list all your purposes for teaching -- purposes that reflect your values, beliefs, experiences, and particular interests and gifts. If you have trouble starting, or get stuck, think about your own school experiences.

- Do you have memories of individual teachers who motivated you to become a certain type of teacher?

- Were there events in your school experiences that helped you see the power that teachers have over students' feelings about themselves and their learning (for better or worse)?

- Can you think of classroom experiences in your teaching career that represented the essence of good teaching and learning? were deeply satisfying and enjoyable? where everything seemed to come together?

  When you feel you have run out of ideas, do not stop. Dig more deeply into what you enjoy and are capable of achieving.

- What purposes did those memorable activities fulfill for you? for your students?

Look over your list. Cross out purposes that may be unrealistic or those that would involve achievements too large to accomplish in concrete, incremental steps. Have you set purposes that reflect your strengths and present situation?

Remember. Purposes that are too large and general may leave you with a recurring sense of failure. Finding those smaller but motivating reasons to keep teaching and growing can sustain your emotional and physical well being!

🕮 Connections to Core Curriculum

Individual, personal purposes can guide professional development and connect with a teacher's responsibilities to implement Core Curriculum. The chart that follows makes use of some individual, personal purposes to make connections to Core Curriculum.

There are many ways to connect personal purposes to Core Curriculum commitments because both focus on supporting student learning and are related to the satisfactions that come from continuing our own learning.

Individual, Personal Purposes	Connections to Core Curriculum
• help at least one student each day to learn something that will make her/ him feel more successful as a learner	• use the Adaptive Dimension and a variety of recommended resources to adapt aspects of programs to meet individual student needs
• use humour in all my classes to value and teach students to use their humour appropriately	• focus on appropriate use of humour as part of incorporating Personal and Social Values and Skills (C.E.L.) in all subjects
• help my students value their own ideas/ products and those of others, and to share their ideas and support the participation of others	• focus on Communication (C.E.L.), and recommended resources related to it, to provide opportunities for students to discuss and share their ideas in every subject area
• help students in my classes and extracurricular activities to appreciate the beauty and intricacy of the natural environment and their interconnectedness with it	• science curricula from K-12 all contain a focus on the environment and our role in sustaining biodiversity. Use these themes and concepts as the focus for integrated units and extracurricular activities

✔Applying your Understanding

Teachers can use the understandings gained from reflecting on the personal purposes that teaching serves for them in the following ways:

When you have developed one or two personal purposes that are not too large, yet reflect aspects of teaching that you care about deeply, they buoy you up when you feel discouraged. Each small act that contributes to a larger personal purpose can be an occasion for celebration at the end of a difficult day or challenging week.

- Incorporate personal purpose/s into yearly Personal-Professional Growth Plans.

  This year my professional growth plan really reflects my own values and strengths.

- During challenging or stressful times, focus on smaller steps towards the achievement of personal purposes.

  Parents are starting to comment on how environmentally conscious their children are becoming. I know I'm contributing to the development of that value and possibly some lifelong habits of reducing, reusing, and recycling.

- Use personal purpose/s as one measure of a good day or week.

  It wasn't a great week, so each day I tried a little harder to stay positive and really connect at least once to each student in a positive way. That got me through and by the end of the week we even managed to have a good laugh together!

Reflection Focus II: Professional Commitments

Focusing on professionalism -- the other side of the personal, professional-development duo -- is important because it is our membership in a profession that gives us both the responsibility and the freedom to grow and change. A renewed appreciation of the rewards and responsibilities involved in belonging to the teaching profession enriches individual teachers and the profession as a whole. However, appreciation of professional responsibilities and freedoms cannot be simply handed down. Genuine appreciation is developed by individuals from their own experiences and values.

"Acting as a professional means realizing and accepting that teaching involves constant change and growth generated from self-assessment and reflection on practice (critical and creative thinking). Acting as a technician means implementing a curriculum or instructional method, or using a textbook or packaged program 'as is' without adapting it after reflection." (A Saskatchewan teacher)

This section invites you to examine your ideas about what it means to be a professional and to answer the question, "Why should I become involved in further implementation/renewal of Core Curriculum?"

Consider these definitions of *professionalism*, written by Saskatchewan teachers (see quotations in left margin). How do these compare with your ideas about the differences between viewing yourself as a *professional* or as a *technician*?

From the following, choose questions that seem most useful in clarifying: (a) your ideas about the commitments and responsibilities of a professional and (b) how these relate to implementation and renewal of the Core Curriculum.

Reflections

- What do I believe are the hallmarks of a professional? What distinguishes the expectations for professionals from the expectations for technicians?
- What is special or unique about teaching, as opposed to the freedoms, ethics, and responsibilities of other professions?
- What is my personal vision of a teacher as a professional?
- How do I enact that vision in my classroom/school/division? (List examples of small acts and larger projects that reflect your personal vision of professional responsibility.)
- When I feel resistant to growth and change, what reasons lie behind these feelings?
- To what extent do I feel my professional growth is supported by others in my school/division/personal life? What barriers do I face? What additional supports do I need to grow professionally? (See Assessment Tool 1, p. 16 and Reference Chart VIII, p. 18 for additional ideas.)
- How do I need to change to make greater professional growth possible? What changes could others make to support my growth better? How will I work towards obtaining needed supports?

The STF believes that teachers, individually and collectively, bear responsibility for their own professional development. Levels of teaching competence are highest when teachers fulfill their professional obligation to be open to new ideas, new curricula and new teaching methods and to engage in self-directed, lifelong professional development activities. (The Professionalism of Saskatchewan Teachers, Saskatchewan Teachers' Federation, 1999, p. 10)

🕮 Connections to Core Curriculum

The following reflective questions move from your personal views of professionalism to views about their connections to curriculum implementation responsibilities and your particular strengths and concerns. (Before responding to the questions, refer to Chapter 1: Reference Charts I, II, III, and IV for an overview of professional responsibilities in relation to Core Curriculum.)

As humans, one of the most important understandings for any kind of growth and change is to know what is holding us back.

"To me, open mindedness is thinking of the best possible outcome while planning for roadblocks." (A Saskatchewan teacher)

Reflections

- In what ways do teachers' responsibilities to implement mandated curricula limit their professional freedom? In what ways are these limits beneficial? not beneficial?
- In what ways do Core curricula support teacher professionalism or the exercise of professional judgement?
- What do I see as the most challenging or difficult aspects of Core curricula? How are these challenges related to my classroom situation?
- What are my strengths as a teacher? (List all your strengths as they come to mind.) In what ways are these strengths consistent/inconsistent with the forms of instruction and types of content reflected in Core Curriculum?
- How do I respond when faced with unfamiliar instructional/evaluation approaches or approaches I dispute?
- How well do the overall directions of Core Curriculum match my personal beliefs and values? To what extent, and in what ways, do I shape my classroom practice to match my own philosophy and beliefs about teaching/learning when they appear to be in opposition to Core Curriculum's central features?
- How do I respond to teachers whose views about instructional/evaluative approaches are different from my own?
- How open-minded am I? Can I adopt a stance that is opposite to, or different from, the one I usually hold regarding these instructional or evaluative approaches (list their *pros* and *cons*)? Can I think of alternative approaches that might reflect a *middle ground*?

Networking Connection. One activity in Curriculum Networking (described in Chapter 4) involves collaborative development and sharing of strategies/lessons/units that reflect a balanced approach to instruction and evaluation, incorporating strategies within teachers' instructional comfort zones as well as strategies that move into new areas/ practices. The above Reflections that focus on our own strengths, challenges, and reactions to new challenges/curriculum change are useful preparation for participating in such collaborative development.

Another focus of Curriculum Networking is on professional dilemmas and common concerns related to implementation. Reflection Focus II is excellent preparation for participating in discussions about these topics in supportive ways.

✔Applying Your Understanding

When you have achieved greater clarity about (a) your professional responsibilities in relation to Core Curriculum implementation and renewal, and (b) the barriers and supports in your context/personal life, you can apply these understandings in several ways.

A teacher vignette

People can really change at any age; I have. The example that comes to mind is the use of math manipulatives in junior high. My first impression was, "This is going to be disastrous." When I brought out the large tiles for solving equations, the students used them to build houses, bridges, and other patterns. They more or less confirmed my thoughts about the bad fit of manipulatives in a junior high school. The second time I brought them out, I found the students were ready to use them as intended. Now, each time I introduce a manipulative, I give students time to "play" or explore possibilities before we get started.

- **Work on increasing your open mindedness**. When you feel your mind about to close down in opposition to a practice being described/ recommended, try to:

    - listen *even more carefully*, instead of blocking out what is being said or read.
    - ask yourself *why* others might recommend this practice. Focus on the idea that it is likely to have *some* merit and ask others to tell you more about the strengths and uses of the practice/approach.
    - develop a reflection about a controversial practice or approach by finding multiple ways to finish the sentence stem: *I wouldn't use this approach all the time but it might be useful when . . . .*

- **Acquire collegial supports**. Collegiality is an important aspect of professionalism. To strengthen your own support system and help your colleagues, you might:

"Belonging to a profession means that you have a responsibility to be collegial -- to work with other professionals in a collaborative and positive manner." (A Saskatchewan teacher)

    - develop a Personal-Professional Growth Plan that involves an important step in the implementation of Core Curriculum co-operatively with a supportive colleague. Make a list of supports you will need and changes that would help you both achieve your goals. Seek administrative support together.

      It really helps me face the magnitude of curriculum change we've been involved in when I know I'm not alone. Others experience similar problems and have similar fears.

    - start a Curriculum Network with supportive peers to help overcome some of the isolation you feel or the barriers you face. (See Chapter 4 for guidance in getting started.)

      In our network group, we feel that we are in control of the degree and quality of curriculum change. Because we've had some positive results, administrative support has increased.

Reflection Focus III: The Many Faces and Forms Of Learning

All teachers have their own learning theories that influence their planning and "on-the-spot" decisions and interactions. The more these theories are conscious and reflected upon, the more likely they are to be used constructively in classroom situations and long- and short-term planning.

This section offers opportunities to revisit your ideas about how people learn and ways students learn best. It focuses on:

- your own learning experiences
- connections between your learning and your students' learning
- what you believe about the concepts of *learning* and *intelligence*
- connections between your ideas about learning and intelligence, and those that underlie Core curricula.

Learning is an essential focus for reflection because teachers' views of learning affect the types and quality of the learning opportunities they provide. All teachers hold personal theories of learning which, consciously or not, influence teaching decisions and interactions with students.

As a starting point for refreshing your personal theory of learning, think about and develop written responses to some of the following questions regarding difficult and enjoyable learning experiences.

Reflections

- What was the most difficult thing you had to learn in your K-12 school years? Why was this information/knowledge, skill/ability, or value so difficult to learn? How was it presented? What did the teacher do that was, or was not, helpful? (After completing these questions, see the following table, Example of One Teacher's Analysis of Difficult Learning, p. 28.)
- To what extent do you still use the learning you identified as "difficult"?
- What was your most enjoyable learning experience in school, university, the workplace, or during a leisure pursuit? What made it so enjoyable? To what extent did your enjoyment correspond to the strength and retention of this learning?
- How do you best learn content (information or conceptual knowledge)? What makes content learning difficult? Have you recently changed any of your beliefs as a result of acquiring new knowledge or information?
- How do you best learn new skills/abilities? What makes skill learning difficult? Have you recently changed any of your skill-related behaviours (e.g., doing things with your left hand instead of your right)? How easy was it? What led to this change?
- How did you learn your values? Have you recently changed any values or attitudes? If so, what led to the change or caused the learning? How quickly do you learn new values or attitudes?

A practical focus of reflection is drawing connections between your past experiences as a student and the needs of the students you now teach.

When you have completed this reflection, ask friends, family members, and/or students a few similar questions and compare experiences. After collecting and comparing a few sets of experiences of both difficult and enjoyable learning, use the next set of reflective questions to analyze and apply your insights.

Reflections

- Are there similarities across people's learning experiences? within categories of experiences (i.e., things people find most difficult about skill-related learning)?
- Are there marked differences between your experiences and those of others?
- What implications for your teaching practices can be drawn from examining your own experiences and those of other adults or students?
- To what extent would using a *variety* of teaching methods compensate for differences between learners? What else might be necessary?
- Are there teacher behaviours that would make learning easier for all students, regardless of their strengths and difficulties? behaviours that would make learning more difficult?

Example of One Teacher's Analysis of Difficult Learning			
Type of Learning I found difficult	Gr. 11 and 12 Chemistry -- almost everything related to it (particularly content learning)	Gr. 9 Typing (skill learning)	Gr. 11 and 12 Physics (affective learning -- learning values and attitudes; content learning)
Why I found it difficult	• didn't see relevance • couldn't understand it, had to memorize it • once I'd memorized it, I seldom had to use it again or apply it to anything • found the teaching methods boring and repetitive, and the teacher not very friendly	• pressures to learn it quickly, lots of timed tests were stressful • I'm not very good at skills requiring good orientation in space or eye-hand coordination • did poorly on first tests and lost confidence	• Couldn't grasp the concepts with the lecture and read-the-text method and was afraid of the teacher • Didn't see its relevance to my life • Thought it was a "boy's" subject and boys dominated the labs and discussions
Extent to which I use or am interested in this learning now	• almost nil	• Extensively -- as a result of working on a computer, I have increased my speed considerably with practice	• I'm interested in some of the ideas in the "new" physics but find them difficult to understand even in books written for the layperson
What might have helped my learning	The following things might have made a difference: • if the teacher had been friendly and established a relationship with me as a person • if the teacher had been enthusiastic about the subject matter and demonstrated its relevance • if some of the material had been presented as concepts to be understood, instead of information to be memorized -- teacher could have used some concept attainment strategies • if the tables, formulas, and other factual information had been used in some way on a regular basis or applied regularly • I see now that I was not just involved in content learning but was also learning a negative value – that chemistry was boring and unimportant	• It seems obvious now that typing (which became keyboarding) is a useful skill but with only the knowledge of hand-and-finger placement, I taught myself the rest outside of school . . . so, maybe the subject needed to encompass more than keyboarding • The teacher could have helped back then by reducing the pressures of timed tests and public comparison of marks • It would have been helpful if the teacher used a greater variety of methods/strategies • The teacher also could have included our names and little things about us in the material we had to type -- personalized it in some way	The same things I said about Chemistry could be said about Physics. • I think it also would have been important to really capture our imaginations about the scope of physics -- I see its relevance and how it connects to "big picture" types of questions now, but I didn't then • I think the teacher might have been more sensitive to what we would now call gender bias in the materials and in the methods of presentation -- most girls seemed to need different kinds of supports for their learning than they got • It might have helped if teachers had the C.E.L.s to support developing higher level thinking and more active student participation

Another way to strengthen your insights into the views about learning that influence your teaching decisions/classroom interactions is to examine your concepts of *learning* and *intelligence*. The following questions and activities can be used in this examination.

Using visualizations and creating metaphors or analogies are two ways to develop awareness of the concepts you hold and the assumptions you make. These practices are used in the reflection process to strengthen understanding of the concepts of "learning" and "intelligence".

Visualizations and Reflections

- Imagine the learning of a child in kindergarten. Develop a clear visual image of this child as s/he is at the beginning of school -- what s/he looks like, appears to be feeling. Now, develop a visual image of the child learning many new things. Find any kind of metaphor for acquiring or developing new learning that works for you. Use this as part of your visual image. What does *learning* look like to you?
- Use the following two contrasting examples of visual metaphors. Compare them to your own ideas. Is your image of *learning* closer to one metaphor than the other?

Metaphor 1: Packing the Suitcase
As a metaphor for how learning occurs, imagine a child going to school with an empty suitcase and a teacher adding contents that will help the child travel through life. Imagine how heavy the suitcase is by the end of the first year. What happens when it is too full for the child to carry? Now, imagine the child discarding some items. Visualize the teacher assessing the child's learning. How could s/he do this?

Metaphor 2: Changing the Inner Map of Reality
Imagine that within a child's body is an invisible map of reality, one the child has drawn in his/her learnings about the world. Only the child can see and make changes to the map. The teacher provides new experiences that broaden and deepen the child's ideas of the world. Imagine the child making additions or changes to her/his inner map with a magic set of pencils. What does the map look like by the end of the first year of school? How will the teacher, who cannot see the map, know that the child is learning?

- Brainstorm and list all activities that come to mind when you think of the concept *intelligent behaviour*. Begin your list by focusing on yourself and all those things you do, feel, or think that you consider to be signs of your intelligence. Complete this reflection before reading on.
- When you have run out of ideas, compare your list to the one that follows.

One way to become aware of your concept of 'intelligence' is to brainstorm a list of intelligent behaviours as observed in daily life.

***Intelligent Behaviour* is**:
- improving your abilities at a team sport
- painting an original picture
- making your friends laugh by the ways you respond to social interactions
- sensing that someone you care about is unhappy, without being told
- building a stone wall by hand
- questioning and/or seeing the long-term consequences of short-term gains
- throwing a clay pot
- getting the correct answer to a mathematical calculation
- making an elaborate pattern or construction with lego bricks
- avoiding "getting caught" when you have misbehaved
- making a sand castle
- hiding your insincerity
- making a pun
- seeing a connection between something you learned in school and a movie you have recently seen
- sensing that someone poses a threat to your safety
- asking the right question when you do not understand something.

- How similar is your list to the one above? In the above list, are there examples you do not consider *intelligent behaviour*? If so, why? What definition of *intelligence* are you using to make that decision?
- Focus your ideas more specifically on some of the typical and unique behaviours of your students. Extend your list to include all of the types of things that students say, do, or do not do, that you would consider *intelligent behaviour*. By broadening your concept of intelligence beyond 'right answers', can some behaviours -- exhibited by students who are usually considered 'weak' -- be added to your list?

🕮 Connections to Core Curriculum

The last decades of research in human learning have presented new insights into the ways that learners are active in constructing their own understanding. Constructivist learning theories have shown the limitations of viewing 'learning' as something we can "give" to students that they will "receive" or learn in exactly the same form, at exactly the given time.

Constructing learning. The view of learning underlying all Core curricula and the Common Essential Learnings is referred to as a "constructivist" theory of learning. It is based on the idea that humans construct their own learning in active processes of observing, questioning, and making connections. (See the first column of Reference Chart II: Central Features of Core Curricula, p. 9 for a summary of beliefs related to this theory.)

The essential purpose behind the extensive research that led to this theory was to observe and describe how humans *develop understanding* of phenomena and ideas in their world. This was a departure from earlier theories that studied how humans could be trained to acquire rote learning and technical skills. While these more behaviourist theories can still be usefully applied in some classroom situations, they are not adequate to support teacher planning when we want students to understand and apply their learning.

Teachers will recognize how constructivist views of learning apply across Core curricula by reading the Instructional Strategies, and Assessment and Evaluation sections of the guides in different subject areas. All those strategies/tools -- involving active student participation in the development of their learning -- support a focus on understanding and application. Such active participation can take many forms, including moments where students are "deep in thought".

The view of 'learning' underlying Core curricula is reflected in the Foundational Objectives and developmental continuums of learning objectives that are sensitive to individual and contextual differences. This view describes 'learning' as an active-interactive process, influenced by individual learner's circumstances and unique characteristics, as well as characteristics of the learning environment.

Another way teachers can recognize the constructivist view is in Saskatchewan Education's use of Foundational Objectives and developmental continuums of specific learning objectives. Constructivist theories have shown the ways that learning *develops* in an integrated and individual fashion. This differs from earlier theories that focused on 'learning' as *acquisition* of discrete facts/skills, within similar sequences, at similar rates for all individuals.

Multiple intelligences. Core curricula and the C.E.L.s also reflect the belief that students have multiple forms of intelligence that differ in kind and degree from student to student. The theory of multiple intelligences (Gardner, 1995; Walters & Gardner, 1985) is another aspect of the learning theory underlying much of Core Curriculum development. Theories such as this differ from earlier ideas that *intelligence* could be represented as an aggregate of linguistic and logical-mathematical skills or as an intelligence quotient (IQ). The theory of multiple intelligences that underlies Core curricula also recognizes and supports cultural differences.

Gardner's Multiple Forms of Intelligence

- bodily kinesthetic intelligence
- interpersonal intelligence
- intrapersonal intelligence
- linguistic intelligence
- logical-mathematical intelligence
- musical intelligence
- naturalist intelligence
- spatial intelligence

Teachers interested in learning more about the uses of the multiple intelligence (MI) theory may be interested in Gardner's (1993) or other recent books that directly relate MI theory to educational practices. For example:

- New City School Faculty. 1996. *Multiple intelligences: Teaching through the personal intelligences.* St. Louis M0: New City School.
- Glock, J., Wertz, S., & Meyer, M. 1999. *Discovering the naturalist intelligence: Science in the school yard.* Kitchener ON: Mind Resources.

A significant contribution to our view of 'intelligence' -- one that influenced Core Curriculum development -- is the idea that intelligence is not fixed for all time, but can be developed by caring teachers and through teaching practices sensitive to the affective domain. (Goleman, 1995; Perkins, 1995)

Learnable intelligence. Another significant way that intelligence theory has changed in response to research is viewing *intelligence* as having important aspects amenable to learning and growth; that is, the belief that one's intelligence is not fixed for all time. For example, Goleman (1995) and Perkins (1995) have developed views of intelligence that emphasize the role of dispositions, attitudes, and values for intelligent behaviour, noting that intelligent behaviour in the emotional and reflective realms is learnable.

✔Applying your Understanding

A broader, more conscious understanding of your own ideas about learning is useful in many ways. Some ways this understanding might be applied include:

Teachers who are conscious of their views about learning and intelligence can use this awareness to question their planning and teaching practices on the basis of the alternatives, choices, and possibilities these present for students, both individually and as a group.

- Use your understanding that similar learning and intelligence theories consistently apply across all Core curricula to plan integrated units that use active instructional approaches and evaluation/assessment techniques. In secondary programs, you may work with a colleague to develop an integrated unit that applies the same instructional strategy/process in two subject areas. Remind yourself that the more students use and apply a strategy to different subject areas and situations, the more likely they are to understand it, use it outside school, and for life.

- The next time you develop an assignment or set of assignments for a unit, brainstorm a list of all the ways students could demonstrate their learning. Offer students several alternatives to written work. Include a combination of shorter written portions with such things as drawings, three-dimensional models, and oral or dramatic presentations. Remind yourself that while students spend time on developing such varied products/presentations, they are actively learning. Time spent in creating is time spent in learning.

- Be alert to the ways that students who appear to be struggling academically may demonstrate a form of learning or intelligent behaviour. Make specific, appreciative remarks when you see these behaviours/signs of learning, regardless of whether they have obvious academic implications.

- If student self-discipline/classroom management are of particular concern, notice and appreciate students' positive uses of social and personal intelligence. Use a grading scheme that takes this area into account within each area study. Remember, Personal and Social Skills and Values (C.E.L.) are part of all subject areas and, thus, are an important focus of learning.

- Develop ways to recognize and incorporate positive types of learning that extend beyond, or take place outside, the school setting. Use students' knowledge and abilities from out-of-school experiences as starting points for other learning.

- Recognize and appreciate your own abilities and types of knowledge. Ask, "What interests, knowledge, and abilities do I have that I am not applying to my teaching? How could I make more use of all my strengths?"

Reflection Focus IV: Making Core Curriculum Work For You

This section contains:
- ideas and reflective questions useful for deeper understanding of the patterns and similarities that exist across all, or most, Core curricula
- examples of key aspects of the philosophy and/or theoretical underpinnings of individual curricula
- reflective tasks to use with these examples.

Recognizing and Using Common Curriculum Elements

The purpose for including material that uncovers patterns and similarities across curricula is to support teachers in the following ways.

1. Increase the ability to recognize familiar Core Curriculum themes/patterns when learning about/implementing new curricula. Rather than learning about an *entire* curriculum each time, concentrate on its specific subject matter/content and the unique aspects of its directions and approaches.

Reflection Focus IV offers teachers opportunities to (a) increase their knowledge of the similarities that exist across all Core curricula and (b) use this understanding to streamline planning and strengthen teaching.

2. Decrease the demands of planning in more than one subject area:
   - gain facility in recognizing and appropriately using the same instructional strategy/assessment technique in more than one subject area
   - recognize opportunities to develop integrated units -- from more than one subject area -- that achieve similar or related learning objectives
   - make more instruction time available by building on concepts, skills, and strategies introduced in other subject areas.

Reflections

Choose from some of the following activities to (a) focus your thinking on the similarities that exist within instruction and assessment across Core curricula and (b) determine the extent that you use these similarities to support learning and streamline planning.

- For each subject area you teach, brainstorm and list all the instructional strategies and assessment tools/techniques you presently use. Circle the ones you use in more than one subject area or across subject areas. Are there others that, with

The reflections related to instructional strategies and assessment tools/ techniques are useful to develop an understanding of the range and common types of instructional and assessment approaches that apply across all Core curricula.

minor adjustments, could be used in many subjects? What would be the advantages/disadvantages for student learning?

- Look at your list again. How broad is the range of strategies and tools/techniques you use? How many strategies and techniques incorporate a high degree of student involvement and critical or creative thought? interaction between students? student choice and independent study? exploration and inquiry? Can you find strategies/techniques in the curricula you are responsible for that would reflect some of these elements?
- In the Core curricula you are responsible for, turn to the section on "Instruction" (i.e., "Instructional Strategies"). Skim through it, check the strategies you use every term/year. Do the same for the section on "Assessment and Evaluation". Choose another Core Curriculum guide; repeat this process. Can you develop categories of strategies and assessment tools/techniques that would reflect the types of instructional strategies and assessment in all Core curricula (e.g., individual strategies, group strategies)?
- Go back and look at the strategies and techniques you do not presently use. Can you find one or two that would be useful to (a) learn more about and (b) implement in more than one subject area or class that you teach? Which one/s? Are there some similarities -- in terms of types of instructional strategies and assessment tools and techniques -- that you tend to avoid? If so, what similarities? If you learned to implement one strategy of this type effectively, would it support your implementation of other similar strategies or tools/techniques?
- For strategies that employ small-group formats, what similar preparations and supports do students need? If the skills and abilities underlying co-operative learning are effectively taught in one class, how could that carry over to group learning strategies in other classes? What different or additional preparations/supports would be needed?
- What similar preparations and supports are needed for independent study and resource-based learning? Could a teacher who has effectively used these strategies in one subject area or class transfer this learning to other subjects and classes? Under what circumstances would this be difficult? inappropriate? useful and effective?

A teacher vignette

I can give you an example of ways a strategy can carry over to other subjects. I have taught for 6 years. For the last 3 years, we have been articulating professional growth goals. My goal last year was to try more Writers' Workshop strategies. At first, it was very chaotic. The students weren't serious about writing and the results I thought would happen, didn't. However, I kept trying different ways of organizing the Writers' Workshop time and continued to talk to the class about the importance of each person's ideas. Now, after a year and six months, I am seeing the positive benefits. The class is on task during writing time and attentive during sharing time. They are also carrying over their writing experience to other areas, like creating better descriptions of science exploration and developing a deeper appreciation for literature during Readers' Workshop.

One benefit of understanding the philosophy underlying all Core curricula is an increased ability to "think on one's feet", responding quickly and appropriately to a variety of instructional situations.

Although many teachers report they sometimes feel impatient with, and have a tendency to skip philosophical, theoretical material, educational theories soundly based in classroom practice can be of great use. Teachers who devote time to understanding the theoretical underpinnings and instructional/evaluation principles on which a curriculum is based will reap many benefits from their efforts.

"There's nothing so practical as understanding the theory behind what I am doing!" (A Saskatchewan teacher)

Uses of Philosophical and Theoretical Understanding

Teachers who understand the foundations of Core curricula can:

- evaluate the appropriateness of any practice or resource
- explain and/or justify any practice to students, parents, and administrators
- "think on their feet" in meetings and during classroom interactions and instruction
- strengthen their own teaching/learning philosophies and increase their clarity in explaining them during interviews, discussions, and planning sessions.

Reflecting on patterns and similarities in Core Curriculum philosophy

The following reflective questions use Reference Chart II: Central Features of Core Curricula (p. 9).

Reflections

Before reviewing Reference Chart II (p. 9), brainstorm and list all key words/phrases that come to mind in answer to the question, "How would you describe the philosophy behind Core Curriculum or individual Core curricula?"

> ***Philosophy** is intended to mean the:*
> *(a) **intentions** (purposes, goals, rationale, beliefs about teaching and learning)*
> *(b) **approaches** (general principles that drive instruction and assessment and central teaching processes).*

- Do not be concerned by correctness. You simply want to increase awareness of your present assumptions and beliefs about Core curricula. If adjectives such as "demanding" come to mind, include these as well as descriptors that relate more directly to the philosophy.
- When finished, skim through Reference Chart II. Circle all the words that you feel to be key words (e.g., in the column entitled Learning Theory, you might circle "active" and "purposeful").
- How closely do these circled words match those in your brainstormed list? Can you match or draw relationships between all your descriptors and the key words circled in Reference Chart II?
- Look at the column headings in Reference Chart II. Each heading represents an important aspect of Core curricula. Are some of these aspects not reflected in your list? If so, which ones? Why might these aspects not have come to mind?
- Consider each individual point in Reference Chart II from the perspective of whether you agree. Choose those points whose classroom implications with which you either disagree or are not totally clear. Reflect on them further. What is really meant by the words that describe each of those points? To get a stronger sense, ask "What would this look like if I acted on it in my classroom?"
- Using the points that are unclear or that you somewhat disagree with, think about each word and whether, if the word were left out, the meaning of the point would be the same. For example, is the word "completely" a significant word in the point: "Processes are never completely mastered"? If so, why? What are the implications of its inclusion for your instructional or evaluation/grading practices?
- How might you change or further qualify a point of disagreement to better reflect your own beliefs? How might this change of wording be reflected in your classroom practice? Would the resultant changes be so different they would contradict the overall philosophy and directions of Core Curriculum?

Reference Chart II (p. 9) provides a relatively quick means to develop an understanding of common elements of all Core curricula and the underlying philosophy of Core Curriculum.

Understanding the Intentions and Directions of Individual Subject Areas

This section provides a concept development process to understand key aspects of a Core curriculum's overall intentions or central approaches. The process is briefly described and illustrated through examples in several subject areas. Key aspects of the philosophy or theory base of a number of the Required Areas of Study are provided in this section. Choose one subject area that you teach. Read the material suggested for that subject before responding to the questions for reflection.

The Process

1. Skim the initial section/s of a Core Curriculum guide in a subject area you teach. Pay particular attention to sections describing the curriculum's principles, premises, rationale, aim, and goals, and material that describes its overall directions or intentions.
2. Summarize the main ideas by restating them in your own words, highlighting key phrases or selecting one or two concepts you believe are most central to the curriculum's directions and approaches.
3. Reflect on what a teacher would be doing in her/his classroom to implement these central intentions/directions and approaches. How would the classroom be organized? What types of resources would be used? What would the teacher be saying and doing on a regular basis? What would students be doing?
4. To achieve greater clarity about what the curriculum's directions would look like in practice, develop an "Examples/Nonexamples" type of analysis. As your focal point, use teaching practices that match, and do not match, the curriculum's central directions/intentions. Another useful way is to contrast classroom practices related to the new curriculum with the dominant teaching methods used prior to the implementation of Core Curriculum that do not match its intentions.
5. ***Note.*** Many so called "traditional practices" are incorporated into Core curricula and continue to be useful when used in a balanced, varied overall approach to instruction. Be sure to note previous practices that continue to match the new curriculum's intentions/directions. You may want to use a three-part analysis using headings such as, "Practices that reflect this curriculum's philosophy", "Practices that *could* reflect this curriculum's philosophy if used appropriately", and "Practices that contradict this curriculum's philosophy".
6. Before you start your analysis, read through one or more of the following examples.

Many "traditional" teaching practices play a useful role in supporting student learning (e.g., direct instruction). An important understanding of such practices is to use them to achieve specific objectives, in specific situations, and as part of a varied instructional repertoire. All instructional strategies and assessment techniques can suffer from overuse or inappropriate use.

Example 1: Understanding a conceptual approach to teaching physical education

Choose the physical education curriculum guide most relevant to the level/s you teach and read the short section of it that is suggested below. Each section describes a conceptual approach to physical education and its rationale. These documents are available from the Saskatchewan Education website at www.sasked.gov.sk.ca

- *Physical Education 1- 5: A Curriculum Guide for the Elementary Level* (1999), pp. 8-10.
- *Physical Education 6-9: A Curriculum Guide for the Middle Level* (1995), p. 5.
- *Instructional Physical Education: A Curriculum Guide for the Secondary Level* (1994), p. 5.

One way to check your understanding of a "Conceptual Approach to Physical Education" is to think how you would describe this approach to students and parents/guardians.

Reflective Tasks

- What does "A Conceptual Approach to Physical Education" mean to me? How would I translate this approach and its rationale into my own words?
- How could I describe it so students would understand it? parents? (If you are uncertain that you have a clear understanding of this approach, ask a colleague how s/he would explain it. Work on a mutual definition that shows how this approach would look in practice.)
- What is new or different about this approach? Read the following two-column analysis and see if you can add your own examples.

Shifting the Organizing Centers in Physical Education[5]	
From Teaching Games and Skills	**To Conceptual Teaching and Learning**
• Lessons and units are organized around particular activities such as, gymnastics or particular games or sports, such as volleyball.	• Lessons and units are organized around concepts such as "Sending" or "Responsible Leadership".
• The activity, game, or sport is considered an end in itself.	• The activity or sport is considered a means to an end; it is the vehicle used to teach and learn the concepts.
• The emphasis is on doing -- students engage in largely non-reflective skills learning. (Often the emphasis for students is on "winning" as opposed to "learning").	• Increased emphasis on thinking (reflecting) while doing -- on the "how" and "why" of doing.
• *Add other instructional and assessment practices that show an emphasis on games and skills.*	• *Add other instructional and assessment practices that show an emphasis on conceptual teaching and learning.*

Example 2: Analyzing the central directions/intentions of English language arts

Choose the English language arts curriculum document most relevant to the level/s you teach or find it on the Saskatchewan Education website, and read the short section of it that is suggested below.

- *Early Literacy: A Resource for Teachers* (2000), pp. 13-19.
- *English Language Arts: A Curriculum for the Elementary Level* (1992), pp. 4-5.
- *English Language Arts: A Curriculum for the Middle Level* (1997), pp. 3-5.
- *English Language Arts: A Curriculum for the Secondary Level* (1999), p. 3.

Reflective Tasks

- What is my understanding of these Essential Practices or Curriculum Principles? How would I translate each one into my own language? How could I reword the essential practice/principle so students could understand it? parents? (If a practice/principle is difficult to understand, ask a colleague how s/he would

[5] This analysis is adapted from a similar one in the Elementary Physical Education Curriculum, p. 10.

explain it. Work on a mutual definition to show how this principle could be translated into practice.)

- What is new or different about this curriculum's instructional emphases?
- Which traditional practices have been retained but recommended within a broader/ balanced range of strategies?
- Are there traditional practices I use that would not reflect the curriculum's intentions, even if incorporated into a broader range of instructional strategies?

Develop a three-column analysis describing the ways you have previously taught this subject area, listing practices that were (a) contradictory to the new curriculum's intentions, (b) useful but not *sufficient*, and (c) the way you would teach the subject area when you implement this curriculum. An example of a few items from one teacher's analysis follows. Can you add to it?

One way to keep your thinking about the intentions and directions of Core curricula from becoming too "black and white" or dichotomous is to develop a three-category analysis of a new curriculum's approach to instruction and assessment:

- *"traditional" practices that have been retained*
- *new practices that have been added*
- *"traditional" practices that have not been included because of their contradiction of the curriculum's central intentions.*

Example of One Teacher's Analysis
Focus: English Language Arts

Past Practices <u>That Contradict</u> the New Curriculum	**Past Practices that are Useful but not Sufficient**	**Desired Practices**
Focus on: • isolated skill instruction and decontextualized activities • *Add other practices that would not reflect the intentions of the new curriculum as you understand them.*	Focus on: • reading and writing, primarily • print texts • teacher-directed instructional strategies • *Add ideas for practices that could be retained if incorporated appropriately within a balanced approach.*	Focus on: • balanced literacy (attention to the six language strands of: listening, speaking, reading, writing, viewing, and representing) • print, aural, and multimedia texts • balance of direct instruction, modeling, guided practice, independent work, and interactive or student-centred strategies • language skills and strategies in meaningful, authentic contexts • *Add ideas to reflect <u>all</u> the principles as you understand them.*

Sometimes, misunderstanding a curriculum's intentions happens because the curriculum guide uses familiar terminology, but applies a different meaning (e.g., "problem solving" is an old term used in a new, specific way in mathematics).

Example 3: Understanding the problem-solving approach in mathematics

Reflect on the meaning of the following sentence from the Middle Level mathematics curriculum: "Problem solving is a process that is learned by doing."

What is new or different about this approach? Read the following examples and non-examples of the curriculum's approach to problem solving. See if you can add your own.

The Approach to Problem Solving in the New Mathematics Curricula	
Non-examples	**Examples**
• Students do problem solving once a week in isolation from other students and from the development of their mathematical understandings. • The teacher, through one or two worked examples of the same type, demonstrates a single problem-solving strategy. The students then work individually on a set of similar problems, often as a homework task. • Single solutions are taken up in the next class and the class moves on to a new topic. • *Add other examples.*	• Students are frequently engaged in co-operative groups, working to solve meaningful, challenging problems. • Class discussions and presentations are used to share problem-solving strategies and challenges that students have faced in the process. • Many of the problems used for instruction have multiple-solution strategies and/or multiple solutions. • *Add other examples.*

Example 4: Understanding the intentions related to the inclusion of Aboriginal Content and Perspectives

Many Core Curriculum guides and other documents contain summary statements related to Core Curriculum initiatives. Finding and carefully studying these short sections can lead to a greater understanding of individual initiatives and to the concept of *equity*. The following is an example of a summary statement that relates to Aboriginal Content and Perspectives. As you read, reflect on its meaning for teaching and learning.

> *The inclusion of Aboriginal Content and Perspectives fosters meaningful and culturally identifiable experiences for First Nations, Métis, and Inuit students. The inclusion of such content, resources, and perspectives also promotes the development of positive attitudes in all students toward aboriginal peoples. Increasing an awareness of one's own culture and the cultures of others develops students' self-concepts, promotes an appreciation of Canada's cultural mosaic and supports universal human rights.*

The rationale for each of the Core Curriculum's equity initiatives consists of important aspects that are (a) similar and (b) unique. One key similarity is that the initiatives are to support and broaden all students' cultural understanding, not just that of students from particular "minorities".

Such culturally sensitive practice goes beyond the addition of appropriate materials and resources to also include a supportive, respectful environment and a range of instructional strategies and assessment techniques -- ones that reflect students' needs, backgrounds, abilities, and interests.

Reflective Tasks

- In my understanding, what is the main rationale for the inclusion of Aboriginal Content and Perspectives? How could I reword this for my understanding?
- How could I describe it so students and parents could understand it?
- How could I translate this rationale into my teaching practices? How would this influence my classroom environment? my relationships with students, parents and community? relationships between students? the content, resources, strategies and assessment techniques I use?

The following presents a few examples of how this rationale would influence teaching. Can you add to it?

Environment	Relationships	Content and Resources	Instructional Strategies	Assessment Techniques
• Teacher displays posters of First Nations, Métis, and Inuit persons, and persons from a variety of cultural groups who have made a positive contribution to Canadian culture. • *Add other ideas.*	• Teacher talks about her/his cultural background, place of birth, family members/ relatives and shows interest in students' backgrounds. • Teacher models appropriate ways to use humour and values its positive use by students. • *Add other ideas.*	• Canadian history is presented from the perspectives of all cultural groups. • *Add other ideas.*	• Teach the behaviours and values needed to use co-operative learning techniques successfully. Vary your co-operative pairs and small groups to (a) meet students' evolving needs, (b) incorporate student suggestions, and (c) promote cross-cultural friendships. • *Add other ideas.*	• Incorporate a variety of student self-assessment tools and techniques after teaching their uses and purposes • *Add other ideas.*

Reflections

- How different would your chart look if it were focused on Multicultural Education? What would be similar? different?
- What aspects of the Aboriginal Content and Perspectives rationale would apply to other equity initiatives such as Special Education or Gender Equity? to the C.E.L. of Personal and Social Values and Skills?

- In what ways does Resource-based Learning support this rationale and the teaching practices that follow from it?

✔Applying your Understanding

Understanding common themes and patterns across Core curricula, and philosophical underpinnings and central approaches of individual curricula, has many uses. In addition to those previously described (pp. 32-34), the following are further practical applications of such understanding.

- Use your understanding of the *why* of particular approaches to:
  - explain their importance to students and parents
  - increase student motivation
  - justify and acquire needed supports or resources.

- Use your knowledge of the active learning approaches that are important in all subject areas (e.g., co-operative group learning) as a focus when planning personal-professional growth activities, teacher workshops, and conference sessions or selecting professional reading material.

- Become a "myth debunker". When parents, friends/acquaintances, or colleagues appear to have inaccurate/incomplete views of aspects of curricula, an atmosphere can result that negatively affects your work. You may be able to provide additional information or supply important qualifiers that incorporate their ideas within a larger framework. For example, you could say, *it is true that our approach to language arts is not one that recommends the use of isolated drill related to phonics, but phonics instruction is a very important part of our new curriculum. We try to teach phonics in ways that have more meaning to our students. The curriculum guide states this very clearly. Could I show you the pages?* If others are not willing to change their present views, you will still have a confidence in your teaching that is based on study of curriculum documents and not on hearsay.

- When you understand the *why* of things, you can think on your feet during instruction, respond more reasonably to student questions or classroom situations, and make adaptations more readily and appropriately.

Summing Up

Reflection often seems to be about "thinking back". The process for Curriculum Reflection is intended to be useful for also "thinking forward", that is, for applying new insights to future practices.

Reflective practice develops from many elements and can take many forms. As in all life processes, *balance* is an important aspect of reflection -- for example, balancing questions with possibilities and serious thoughts with humourous insights. Another important balance is between "reflecting back" and "looking forward".

As your reflective practice develops, you may see students becoming more reflective as well.

Chapter 3: Curriculum Inquiry

Overview

Curriculum Inquiry is an active classroom process. Teachers can use it to implement new teaching methods and to evaluate the results.

What?

Curriculum Inquiry is an active process involving teachers in implementing self-selected aspects of Core curricula in their classrooms and evaluating the results.

How?

Curriculum Inquiry is accomplished by a streamlining of basic planning, teaching, and evaluation activities that teachers engage in customarily. Teachers increase their opportunities for understanding particular instructional strategies or evaluation techniques through the use of reflective tools and other supports provided in this chapter.

Adding up the Benefits of Curriculum Inquiry

Making curriculum change manageable and self-directed (in addition to)

+ tailoring curricula to classroom situations
+ learning new teaching methods
+ strengthening assessment and evaluation techniques
+ documenting learning and student participation
+ gaining understanding of what works and why
+ increasing quality of information for parents/administrators
+ feeling confident and accountable
+ growing in critical and creative thinking abilities

= Stronger Teaching and Greater Opportunities for Student Learning

Why?

Teachers who engage in Curriculum Inquiry can direct their own implementation/renewal process, fulfill curriculum responsibilities, implement personal-professional growth plans, and support student learning -- all within the same set of activities. More specifically, when you undertake Curriculum Inquiry you can experience benefits like those in the chart on this page.

Organization of the Chapter

The overview chart that follows describes the five stages in the Curriculum Inquiry process in summary form. The chapter is sub-divided into five sections. Each section describes one stage in the process and concludes with a one-sentence guideline. Opportunities for Curriculum Reflection and Curriculum Networking are also incorporated into the inquiry process where relevant.

Overview charts that present the steps within each stage in summary form precede fuller explanations and important considerations. Planning and assessment tools needed in the inquiry process can be found in Appendix A and are in full-page format for ease of duplicating. Appendix A also contains examples of Curriculum Inquiry planning in several subject areas and at various grade levels.

When teachers have been through the Curriculum Inquiry process once, the chart "Stages of Curriculum Inquiry: Overview" may be the only reference they need for planning another one.

Stages of Curriculum Inquiry: Overview

Stage 1: Committing

Committing to continuous personal and professional growth through Core Curriculum implementation/renewal activities and the inquiry process.

- *Why should I become involved in further implementation/renewal of Core Curriculum?*
- *How can Curriculum Inquiry support my personal-professional growth?*

Stage 2: Focusing

Focusing upon a key element of Core Curriculum -- either one that cuts across subject areas or one from a particular subject area; turning your focus into a Professional Target.

- *What do I want to do? How can I select a manageable focus?*
- *How can I translate my focus into a concrete target?*

Stage 3: Planning

Planning lessons, units/modules, activities that will incorporate your selected focus and contribute to the achievement of your target; finding ways to evaluate the impact of your target; listing the materials and supports that will be needed.

- *What actions will I take?*
- *What behaviours, products, and feelings will indicate that I have achieved my target?*
- *What supports do I need?*

Stage 4: Acting

Acting upon the plan developed (gathering materials, enlisting support, implementing the focus, documenting effects, problem solving with students, seeking advice).

- *How can I best implement my plan, record the results, and reflect on the process as it unfolds?*
- *How can I ensure that I recognize unanticipated or all relevant effects?*
- *How can I involve students in solving problems as they arise?*

Stage 5: Reviewing

Reviewing results of actions; reflecting upon effects on students and self, and equity concerns; adapting classroom routines, teaching behaviours, and curriculum materials and topics in light of new insights; sharing understandings and adaptations with colleagues.

- *To what extent did I achieve my target? How was I affected by this achievement?*
- *What was successful, why, and for whom? What should change?*
- *How can I build on what I learned?*
- *Who else might be interested in/benefit from my experiences?*

Stage 1: Committing

Saskatchewan teachers describe the importance of designing professional development activities in ways that can be clearly connected to student learning.

Teachers involved in the development of this Handbook have stressed that the most essential rationale for their commitment to participation in any professional development process is that it result in real benefits for their students. This placement of the highest value on student learning echoes the findings of Goodlad's (1994) study of American teachers and schools. He said:

> *Good teachers are driven in their daily work by neither the goal of improving the nation's economic competitiveness nor that of enhancing the school's test scores. Instead they are driven by a desire to teach satisfyingly, to have all their students excited about learning, to have their daily work square with their conception of what this work should be and do.* *(p. 203)*

Another reason for participation in Curriculum Inquiry is that the inquiry process may be used to achieve personal purposes for teaching.

Reflection Connection. See Reflection Focus I, p. 21 for questions and materials that help teachers become clearer about their personal motivations which, if acted upon, increase the satisfactions they experience as a result of teaching.

As well, Curriculum Inquiry is useful because it combines many teacher responsibilities within one process.

Teachers have suggested other more specific professional rewards that may also result from involvement in Curriculum Inquiry. These include the development of abilities that can be:

- used in obtaining special grants such as, those given by the Stirling McDowell Foundation
- applied in graduate work
- developed as a marketable skill.

Guideline. *Find the purpose for committing to Curriculum Inquiry that is most meaningful to you.*

No single action will be more important in ensuring the success of your Curriculum Inquiry than that of choosing the best focus -- one that suits you and meets the needs of your students.

Stage 2: Focusing

Overview

The selection of a useful and worthwhile focus for Curriculum Inquiry involves making decisions about what aspect of Core Curriculum you will implement further based upon some crucial assessments of yourself, your students, and your teaching context. The Overview chart on the following page shows the relationships between these assessments and your selection of a:

- **Curriculum Focus** (the subject area, Core Curriculum Component or Initiative you will implement further)

- **Professional Target** (the specific instructional strategy or evaluation technique within your Curriculum Focus that you will implement within the inquiry process).

Focusing Stage: Overview

Achieving a useful and worthwhile focus involves answering important questions before making final decisions.

Selecting a Curriculum Focus

- What Curriculum Focus am I most interested in implementing further?
- What Curriculum Focus am I most in need of implementing further? See Assessment Tool 2, pp. 80-81 to help make this assessment.

Decide on a Curriculum Focus based on your answers to both questions.

Selecting a Professional *Target*

- What Professional Target am I most interested in learning more about through use of the inquiry process? See Planning Tool A, pp. 82-88 for ideas.

- Does the Professional Target I have selected suit my needs, interests, and abilities and those of my students? How does it relate to the levels of understanding and support available in my school/community context? See "Knowledge of Needs, Supports, and Curriculum", p. 89 to help make these assessments.

Decide on a Professional Target based on your answers to both questions and assessments.

Curriculum Focus and Professional Target: Examples

Curriculum Focus	Professional Target
• ***Subject area***. An elementary teacher might wish to implement the Elementary Arts Education Curriculum more fully.	• ***Creative Process***. Stronger understanding and better use of the creative/productive process in arts education.
• ***C.E.L.*** A secondary teacher might examine ways to strengthen the incorporation of Critical and Creative Thinking into the subjects s/he teaches.	• ***Debating***. Effective use of debating as a strategy to develop critical thinking in science, social studies, and health education.
• ***Core Curriculum Initiative***. A middle years teacher might wish to incorporate a strong gender equity focus across the subject areas s/he teaches.	• ***Student self-assessments and co-operative learning group assessments***. Use of student self-assessments and co-operative learning group assessment tools and techniques to raise awareness of, and progress towards, gender-equitable behaviours.

Using the Planning and Assessment Tools to Select a Focus and Target

Appendix A contains three planning tools related to the focusing stage:

- Assessment Tool 2
- Planning Tool A: Suggestions for Professional Targets
- Planning Tool B: Knowledge of Needs, Supports, And Curriculum.

This section describes ways to make use of these assessment and planning tools.

Using Assessment Tool 2: Stages of Implementation

Assessment Tool 2 has several uses including:

- *assessing your own progress in implementing any new curriculum*
- *planning the next steps to take in further implementation.*

After selecting a Curriculum Focus that interests you and that you feel you need to implement further, use Assessment Tool 2, pp. 80-81 to ensure that it is the most appropriate focus for you.

Read through the descriptions of stages and select the one that most closely reflects your present growth in relation to the Curriculum Focus that you selected. Look at the descriptors in this stage and the one that follows it for ideas of some of the activities that you might undertake and the supports you may need.

Alternatively, this assessment tool can be used to help you select a Curriculum Focus to work on this term. As you read through the stages in Assessment Tool 2, you may find that a particular subject area, Common Essential Learning, or other Core Curriculum Component or Initiative comes to mind as one most in need of your attention.

Using Planning Tool A: Suggestions for Professional Targets

See Planning Tool A, pp. 84-90 for suggestions of targets in several areas of study. These suggestions reflect feedback from pilot teachers, provincial curriculum evaluations, and national and provincial learning assessments about important elements of subject areas that need further strengthening. The suggestions for Professional Targets are developed at two levels in order to support you in finding a target that matches your present stage of implementation in the area you selected.

Planning Tool A can also be used to get a better understanding of what a manageable target might look like.

Using the questions in "Knowledge of Needs, Supports, and Curriculum"

In order to ensure that your Professional Target is selected from the perspectives of its implications for self, students, and community, reflect on the questions in the Planning Tool B before deciding upon a specific target.

Reflection Connection. The questions and advice in Planning Tool B are related to several of the foci in Curriculum Reflection (see Chapter 2). If you are involved in this process, you may have given thought to these topics already and will find the material in Planning Tool B to be a quick

review of your ideas. If not, you may find that reading the chapter on reflection offers further support for the focusing step.

Selecting a Professional Target that can be applied across subject areas means increasing the opportunities and situations in which you might gain new insights about the effects of a strategy or process on student learning.

Professional Targets that can be Applied to Several/All Subject Areas

- Unit planning process is fairly similar in all subject areas.
- Creating and responding processes are used in both arts education and English language arts in ways similar enough to allow for some transfer of students' skills/abilities from one subject area to the other.
- Decision-making processes are a central part of health education and of many social studies curricula.
- Resource-based learning is used in all subject areas.
- C.E.L.s are integrated into all subject areas.
- Equity Initiatives related to culture, gender and special needs apply to all subject areas.
- Many instructional and assessment techniques can be used across subject areas.
- Adaptations (Adaptive Dimension) related to materials, topics, instruction and the environment to help students achieve curriculum objectives can be used across subject areas.

Guideline. *A good Professional Target is one that:*

- *is an important instruction or assessment element of Core curricula that makes you relatively comfortable yet takes you into an area that you tend to avoid*
- *meets your students' needs for active participation, new challenges, and essential skills/abilities.*

Stage 3: Planning

The third stage in the inquiry process is that of planning for the successful implementation and evaluation of the Professional Target you selected in the Focusing Stage. This section includes:

- overview charts of elements, actions, and activities within the Planning Stage
- suggestions to assist you in planning a successful Curriculum Inquiry process.

Overview

Curriculum Inquiry can be considered both a professional development process and a form of classroom research. The elements of an inquiry plan include those things a teacher will do in order to successfully implement her/his Professional Target and the actions a teacher will take in order to evaluate the impact of the target and the success of her/his plan. See Planning Tool C, Sample Curriculum Inquiry Plan, p. 90 for a sense of how the elements of a Curriculum Inquiry plan relate to each other and to the Professional Target that has been selected.

The Sample Curriculum Inquiry Plans in Appendix A, pp. 91-98, provide concrete examples of all the elements of a plan -- ones in a number of subject areas and a variety of grade levels.

Elements of a Curriculum Inquiry Plan: Overview

Learning goals for self. What you hope to learn as a result of implementing your target and completing the inquiry process.

Learning goals for students. New learning you hope students will achieve as a result of implementing your target.

Supports I will need. Those supports that will help you to learn more about your target and effective ways to implement it, as well as the supports you need in order to carry out a successful Curriculum Inquiry process.

Actions I will take to prepare. Those actions/activities that will help you to better understand your target and support its successful implementation.

Actions I will take to implement. All the actions you will take when implementing your target in the classroom.

Indicators of success for teacher and students. The behaviours and products that will signify new learning for you and for your students.

Assessment/evaluation tools and techniques. Ways you will assess learning; assessment and evaluation tools you will use.

Record-keeping system. The system and materials you will use to record events in the Curriculum Inquiry process as it unfolds.

These elements are described more fully in the next section. As well, Appendix A provides many examples of each element within the contexts of plans developed in specific subject areas and grade levels (see pp. 91-98).

About the Elements of a Curriculum Inquiry Plan

Learning goals for self. These are your professional development goals in relation to the target that you have chosen. A good way to develop learning goals for yourself is to think about what you do now in relation to your target and what you would like to do -- that is, the changes you would like to make, and the new skills/abilities, knowledge, and values you would like to acquire.

Examples of <u>Teacher</u> Learning Goals

(a) **Professional Target**: Effective use of manipulatives in mathematics

Learning Goals

- Learn more about the why, when, and how of using manipulatives (e.g., reread relevant sections of curriculum, seek other professional resources, attend workshops, view video/s, work with a mentor).
- Learn a set of facilitative behaviours to support students when they are using manipulatives (e.g., good questions to ask, when to intervene).
- Increase my confidence in relation to the use of manipulatives and forms of instruction that support their use.

Examples of Teacher Learning Goals (continued)

(b) **Professional Target**: Creative/Productive strand, arts education -- creative process

Learning Goals

- Increase my understanding of the creative process and how it differs from the approach to creating arts and crafts that I am using now.
- Increase my abilities to facilitate the creative process and support student problem solving; find ways to provide greater degree and quantity of choices, materials, and media.
- Develop relationships between creative process in arts education and in English language arts.

The achievement of teacher and student learning goals is a reciprocal process. When teachers achieve their learning goals, students' learning is supported.

Learning goals for students. These are the particular forms of learning that you hope students will achieve as a result of implementation of your target. The learning goals for students are strongly related to why you selected your particular target -- that is, to the particular benefits to students that could result.

Examples of Student Learning Goals

(a) **Professional Target**: Effective use of manipulatives in mathematics

Learning Goals

- demonstrate increased interest and confidence in learning through manipulatives
- participate more fully in mathematical problem solving
- know how and when to use particular manipulatives
- increase their independence in the use of manipulatives
- support the learning of others in appropriate ways.

(b) **Professional Target**: Creative/Productive strand, arts education -- creative process

Learning Goals

- know a process to follow in creating/producing artworks through experiencing it in some general steps
- follow steps relatively independently and know when and how to ask for assistance
- show responsibility in using, sharing, and storing materials and "cleaning up"
- increase the individuality (personally expressive qualities) of their artworks.

Supports I will need. This aspect of your plan involves thinking about the range of supports that, if acquired, might make the achievement of your learning goals more likely. You would list the resources, materials, and other forms of support (such as in-service) you feel you need for successful implementation and set yourself a timeline for acquiring these supports.

Planning for the support you will need to implement your Curriculum Inquiry plan usually involves knowing your teaching context and the challenges it contains.

Supports: Examples

- release time to visit a teacher who has refined the approach I want to implement
- additional materials/resources related to implementing my target effectively
- assistance from the teacher-librarian in selecting resources and teaching key skills related to my target
- administrative awareness of and support for my plan
- parent/guardian "awareness night" or information brochure related to my target

Actions I will take to prepare. These are the specific things you need to do in order to implement your target. They would include things like obtaining materials, reading curriculum resources, seeking advice, and planning lessons/units.

Effective use of Manipulatives in Mathematics: Examples of "Actions I will Take to Prepare"

- Attend conference related to my target.
- Reread curriculum guide paying particular attention to relevant sections.
- Gather and evaluate appropriate resources.
- Develop a list of "Indicators of Success" and the tools I will use to assess their achievement.
- Use manipulatives myself to understand their uses better.
- Develop a classroom learning environment that supports the use of manipulatives (e.g., portable cart for storage, procedures for orderly distribution, rearrangement of desks, chairs/tables).
- Develop mini-lessons that teach students how to make effective use of particular manipulatives (think about "what will students need to know to use these manipulatives successfully?").

Actions I will take to implement. Look at the learning goals for yourself and for your students. Think about the specific actions you will take in the classroom during instruction in order to make the implementation of your target successful and the achievement of learning goals complete.

"Actions I will Take to Implement": Examples

- Involve students in a discussion of the rules and routines needed for successful implementation of my target and post these in the classroom.
- Introduce my target in a positive manner.
- Have a shorter lesson the first time my students engage in the targeted learning and hold a joint problem-solving session afterwards, if needed, to clarify expectations and develop alternative behaviours.
- Provide at least three different opportunities for students to learn the new process, strategy, or technique.
- Document learning challenges or interesting results daily/weekly.

Indicators of Success. Indicators of success are criteria you will use for evaluating the achievement of your learning goals and those for your students. In developing these, you ask questions such as, "What might be some signs that individual students are increasing their interest and confidence in this subject? How might I judge the extent to which I have learned to use appropriate facilitative behaviours?"

Examples of behaviours that could indicate teacher personal-professional growth in the affective domain are given in Appendix A, Planning Tool D (a). Assessing and demonstrating your own growth and the achievement of your learning goals in knowledge or skill/ability areas are more straightforward tasks -- ones where these achievements can be made evident in teacher planning, classroom instruction, and through informal interviews or discussions.

Designing "Indicators of Success" largely involves imagining and describing all the behaviours that might be signs of learning.

The more that you become accustomed to looking for a broader range of indicators of growth, the more confidently you will be able to:

- discuss your own professional growth with administrators
- share understandings related to Core Curriculum with colleagues
- demonstrate or explain progress to students, parents/guardians.

See Appendix A, Planning Tool D (b) "Developing a Range of Indicators of Success: Student Examples," p. 100, for examples of behaviours that indicate positive student growth in the areas of:

- attitudes and values
- skills and abilities
- knowledge.

"Indicators of Success" Matched with Assessment/Evaluation Tools: Examples

Indicators of Success	Assessment/Evaluation Tools and Techniques
For Teacher	**For Teacher**
• carried out my plan (fully, for the most part)	• checklist of the steps in my plan
• learned to use new strategy effectively	• colleague observes my use of strategy
For Students	**For Students**
• are eager to begin, work with concentration	• observation checklists, rating scales
• show improvement over several trials	• examples of student work from a portfolio

Assessment/evaluation tools I will use. List the assessment tools/techniques you will use for individual indicators or groups of similar indicators. A wealth of information is available to teachers when selecting appropriate assessment tools. See the Evaluation section of the curriculum guide in your targeted subject area/s and other resources such as *Student Evaluation: A Teacher Handbook* (Saskatchewan Education, 1991).

The record-keeping system in an Inquiry plan is for recording events in, and thoughts about, the Curriculum Inquiry process as it unfolds.

Record-keeping system. This is a system for keeping track of events as they unfold; that is, noting such things as behavioural changes, times spent, and problems and ways they were solved. These records supplement the data collected through using the assessment tools and techniques described in your plan.

Record-keeping System: Example

What I will record

- time spent in planning
- class time spent in implementing
- problems that arose and how they were solved
- interesting/unexpected student responses
- equity-related concerns and successes

How I will record

- make anecdotal notes in my day planner
- keep a log book devoted solely to my Curriculum Inquiry experiences
- collect interesting, unique examples of students' work in a separate folder

Refer to Appendix A (pp. 91-98) for completed examples of plans in various areas of study and at several grade levels.

Steps in Planning

Curriculum Inquiry planning is not a linear process. The three types of planning outlined below should be accomplished together -- working back and forth between steps in each type as necessary.

Curriculum Inquiry is a form of professional development. Plan for a range of ways to demonstrate to yourself or others that you have developed new understanding, values, and abilities.

Personal-professional development planning

1. Select a subject area, Common Essential Learning, or other Core Curriculum Component or Initiative as a focus for your personal-professional growth for this current school term/year.
2. Select a particular aspect of the subject area, Component, or Initiative as a Professional Target (e.g., learning a new and centrally important instructional strategy or process such as dialectical reasoning in social studies or the decision-making process in health education).

Lesson, unit, and yearly planning

1. If you have not already done so, consult relevant curriculum guide/s to sketch a yearly plan for the subject area/s related to your target.

2. Include in your yearly plan at least three trials for implementing your Professional Target. This can be done through incorporating experiences/lessons related to your target into three different units or through the inclusion of several opportunities to learn and practise the Professional Target in one unit.

3. Sketch out the unit/s in which you will implement the target. Establish a realistic time frame that allows for problem solving and practice.

4. Plan your more specific lessons for each unit closer to the time of their implementation and allow for changes to your plans in order to address specific challenges that might arise.

Curriculum Inquiry planning

1. Define your Professional Target as specifically and concretely as possible and in terms of your professional growth. Think about what you do now and what you want to do differently.
2. List learning goals for yourself and for your students. Use curriculum guides and other resources such as the Common Essential Learnings objectives to develop and legitimate a broad range of learning goals.

3. Refer to curriculum guides and resources, as needed, in order to:
   - brainstorm and list all relevant and appropriate actions you will take to prepare and to implement
   - list the resources, materials, and forms of support you will need for successful implementation
   - define Indicators of Success for all types of learning you wish to develop/support (Try to include demonstrations of growth related to attitudes and values. See Planning Tool D (a), p. 99.)
   - list the assessment tools and techniques you will use to assess self and students.

Planning Tool D (a) in Appendix A, p. 99, may offer you some ideas related to demonstrating personal-professional growth in the affective domain (attitudes and values).

4. List ideas for involving students in some aspect/s of the planning and implementation, and incorporate into *Actions I will take to Implement.*

5. Review your plan from the beginning -- evaluate your lists of actions, supports, and resources with a view to simplifying and streamlining your plan. Eliminate items if necessary.

6. Establish a timeline for acquiring supports and resources and for completing preparations.

7. Establish a simple record-keeping system to record events during implementation, such as making anecdotal notes at the bottom of your teacher day planner or keeping a separate logbook in which to note events of interest.

Important Considerations

The following suggestions will support your planning:

1. ***Incorporate Curriculum Inquiry plans into your regular planning practices.*** Planning for a Curriculum Inquiry need not be in addition to or on top of your regular planning. It should fit smoothly into your usual yearly, weekly, and/or daily planning practices because it has the same basic elements of curriculum, instruction, and evaluation. A good time to begin the planning for Curriculum Inquiry is before school begins each fall or in the early weeks of a school term. See the sample Personal-Professional Growth Plan (p. 2) for an example of how one teacher used Curriculum Inquiry as the focus of her professional development for one school year.

2. ***Plan for three applications of your selected focus.*** In order to achieve real comfort and skill with your targeted strategy/technique, you need to allow time and opportunities for sufficient practice. We suggest that you and your students require a minimum of three experiences with your

focus for most strategies and techniques, and entire school terms to learn larger processes.

Time spent on implementing/practising your Professional Target now will pay dividends later in terms of gaining skills and abilities that can be used in other subject areas and throughout life.

3. ***Recognize the long-term gains that can result from spending adequate time on implementation of your target in the short term.*** Develop a plan that takes into account the additional class time that may be needed for sufficient practice and for problem solving with students as challenges arise. An appropriate way to allow for this time is to plan your unit/s using a variety of instructional strategies including some direct instruction lessons as appropriate. Recognize that time spent now in learning an important instructional strategy, learning process, or assessment technique will pay dividends later as many, if not most, of the new skills and abilities learned can be applied in other subject areas and will contribute to lifelong learning.

4. ***Categorize your supports into "must have" and "would be nice to have"***. Be prepared to be flexible and to implement without all the items/supports on your list. Negotiate for your "must haves" by offering something in exchange. Be prepared to share with others.

An essential element of equitable education is that of conceiving of learning broadly and offering students many and varied opportunities to learn and to "show what they know, value, and can do". Teachers who also apply this principle to their own achievements are likely to increase both their self-knowledge and their confidence.

5. ***Develop a broad range of learning goals***. Use curriculum guides and resources related to Common Essential Learnings to develop a broad range of learning goals. The knowledge, behaviours, attitudes, values, and skills/abilities related to the C.E.L.s are legitimate aspects of assessment plans and grading schemes within areas of study. Teachers can refer to these as needed when developing learning goals related to work habits (e.g., Independent Learning), social behaviours and attitudes (e.g., Personal and Social Values and Skills), and process learning (e.g., Critical and Creative Thinking).

   As well, Core curricula incorporate a focus on forms of equity. One of the cornerstones of equitable education is the idea that students be given every opportunity to "show what they know" as opposed to having only one means to demonstrate their learning, such as the end-of-chapter test. To provide these opportunities, teachers need both a broad and deep conception of learning and many assessment tools and techniques in their repertoire.

Reflection Connection. Reflection Focus III contains a set of questions to support teachers in increasing their awareness of the many ways learning takes place (p. 27). You may wish to read those questions and spend some time thinking about how you would answer them before continuing with this area of your planning.

Guideline. *Keep your plan as simple and straightforward as possible. Effective implementation and professional growth have their beginnings in teachers taking small steps toward new understandings and behaviours.*

Stage 4: Acting

This stage involves following your plan, changing it as necessary when circumstances dictate, involving students in problem solving when challenges arise, seeking advice as needed, and recording events (both negative and positive) as they unfold.

Important Considerations

The considerations related to implementing a Curriculum Inquiry plan can be applied to and increase the success of a teacher's use of any new instructional strategy or assessment tool.

1. ***"If at first you don't succeed ..."*** Be prepared for some challenges and setbacks, and several trials. Keep your focus positive and adopt a problem-solving approach. Involve your students in coming up with better ways to approach routines and procedures related to your target. A Saskatchewan teacher describes how she turned a shaky start into successful learning in the vignette that follows.

> ***A teacher vignette***
>
> *When I was piloting the Arts Ed curriculum, I had a Grade 3 and 4 class in a northern community. I remember telling the class that we were going to the gym to learn how to dance. All they heard though was that we were "going to the gym," and going to the gym meant fun--running, yelling, letting off steam! I had failed to realize that certain behaviours were associated with that space (and they weren't conducive to learning how to dance!). The students were pretty wild. When I finally did manage to get some order and began to try to teach some dance steps, the students were disappointed, sullen, and pretty unco-operative. The whole thing was a disaster.*
>
> *For the next class, we took the time to talk a bit about dances the kids knew. I explained the expectations and set some ground rules before we went to the gym. In the gym, I had decided to "lighten up" the dance instruction and try a more "game like" beginning. We had fun exploring space and shapes with London Bridge, and worked out some variations based on the students' suggestions for different ways we could move through the dance/game. In the end, there was only one non-participant, a boy who was very big for his age and very self-conscious -- so I put him in charge of the music (he took his responsibility very seriously and was able to FF and RW well enough to have the music cued just right).*
>
> *I think it was the 3rd or 4th lesson when we moved on to learn a Métis Dance that had a similar formation to London Bridge. We explored the movements from the Dance making them larger, smaller, faster, and slower to create our own dance sequences. The students enjoyed their dancing so much that they wanted to perform at the Christmas concert -- the first public school dance performance! So, from an awful beginning to the applause of friends and family -- Whew!*

Often, our first experience with a strategy is not a good indication of its uses and benefits.

2. ***Withhold judgements until you have completed the Curriculum Inquiry process.*** It may be tempting to draw conclusions after your first experience with implementing your target; however, you will learn the most about the strategy or technique that you selected and the ways it affects students' learning if you wait until you have concluded the "acting" step. As the vignette above shows, often our first experience with a new strategy is not a good indication of its uses and benefits.

3. ***Observe individual student responses.*** Be alert to changes in individual student's usual behaviours and find ways to describe these briefly for future reference. Some behaviours to watch:

   - Increased or decreased participation of individual students. *Are some students who are usually quiet talking more or showing greater interest in other ways? Do confident students appear more hesitant or uncertain?*

Rather than attempting to describe a "blanket" or whole-class response to a new strategy or technique, observe changes in the behaviour of individuals.

- Production of original work, unexpected answers, thought-provoking questions, unique ideas.
  Does use of this strategy/technique appear to be stirring the imagination and creativity of some students more than is usual for them? supporting some students to think in new ways?

- Increase or decrease in perseverance and/or confidence.
  Do some students stick with a challenge longer/give up more quickly than is usual for them? Do some students ask to work longer; show regret when the lesson time is up?

4. ***Spend some time observing and reflecting upon ways your target relates to equitable education.*** Many of the instructional strategies and assessment techniques in Core Curriculum guides are incorporated because researchers and experienced teachers have demonstrated they support the learning of diverse student populations. Think about your equity concerns and note such things as differences between responses of female and male students, challenges that may be related to students' first language, or approaches that worked with students from particular cultural backgrounds. Briefly describe any behaviours of interest in your day planner or logbook for future reference.

5. **Review your plan during implementation**. Review your plan from time to time to ensure that you are doing what you set out to do and collecting the information that you planned to collect. If your record-keeping system is not working for you, simplify it.

6. **Record time spent in preparing and implementing.** Note the amount of time spent in preparing for each lesson related to your target, the class time spent in implementing it, and the time spent in evaluation, student assessment, and record keeping. As teachers have described the time needed for student-centered or interactive approaches as a concern, this may be an area that you would like to be clear about at the "reviewing" stage.

7. **Think and act positively**. Remember that your attitude will affect the attitudes of your students -- act enthusiastically even if you have some initial misgivings about how well things will work. Develop or borrow a maxim to repeat to yourself when problems arise. (e.g., There are no perfect teachers -- only teachers who are or are not committed to growth. We all learn important things by trial and error -- mistakes are human.)

An important aspect of implementing your Curriculum Inquiry plan is to think and act positively -- the inquiry process is about trying and learning, not "succeeding" or "failing".

8. **Focus on the benefits to students**. Remind yourself when necessary that you are learning and persevering with your targeted strategy/ technique for the benefit of your present and future students. As not all students learn in the same ways, the greater the variety of strategies you can draw upon the better.

9. **Seek help and advice from colleagues**. Think of experiencing problems during the implementation of your target as opportunities to share your experiences and collaborate with interested colleagues in developing solutions. Two heads are almost always better than one!

Networking Connections. If you belong to a teacher network, chances are some teachers in your network may have experience using the strategy or technique you selected as your target. You might want to simply phone or e-mail your network members for ideas and advice, or describe your problem during the "Sharing Time" section of your next network meeting. Others may have implementation stories to share as well. Your sharing could conclude with small or large group brainstorming of alternatives and possible solutions.

10. **Celebrate accomplishments**. Be prepared to enjoy your new learning. Plan a way to celebrate your achievements. Teachers often say that they remember lessons and responses that did not work longer than successful ones, and, give more prominence to their "failures" than to all the things they do right. Use the inquiry process as an opportunity to turn negative thinking around.

***Guideline**. A Curriculum Inquiry plan can always be improved further during implementation -- involve your students in problem solving and making refinements.*

Stage 5: Reviewing

This stage is primarily one of synthesizing what you have learned. It involves looking back through your records and looking again at products of learning with fresh eyes and a focus on what meaning this material has for teaching and learning.

In the reviewing stage, you want to make judgements about the extent to which you achieved your learning goals and those you set for students' learning. At the same time, you need to remain open to other insights, unplanned achievements, and new questions that may arise.

The most central task of the reviewing stage is to find ways to answer the question, "To what extent and in what ways did I achieve my learning goals for myself and those for my students?" However, in attempting to answer this question, you do not want to overlook other things you have learned during the inquiry process. For this reason, your procedure for reviewing what you have learned needs to contain some degree of openness.

Actions and Activities in the Reviewing Stage: Overview

- **Collect materials to review.** Review all materials from your record-keeping system and those related to the assessment/evaluation tools you used (e.g., videotapes, checklists, student responses).
- **Record additional significant experiences.** Reflect on the inquiry experience as a whole and add brief descriptions of any missing events/ideas to your review materials.
- **Design a simple analysis chart.** Create a way to make sense of your review materials; for example, a large sheet with three columns entitled *Results related to My Learning Goals*, *Results related to Learning Goals for Students*, and *Unexpected Results/Events*. An alternative would be to summarize in four columns entitled *What Worked*, *What Didn't*, *What Students Learned*, and *What I Learned*.
- **Read through your materials and fill in your chart.** Skim your materials and fill in your chart as appropriate. Add additional sections to it as new ideas arise or redesign your chart to reflect better the content of your review materials. For example, you may want a heading such as *Things I Would Do Differently Next Time* or *New Questions I Have*.

Actions and Activities in the Reviewing Stage: Overview
(continued)

- **Read through your analysis chart looking for oversimplifications.** If you feel you have not described some aspect of your inquiry process accurately, ask, "How do I need to qualify this to better reflect my experience?" Often, the addition of one adverb or adjective can increase the accuracy of your description of events or outcomes.

- **Synthesize your understanding.** This is the step where you pull everything together in your mind -- starting with questions such as, "What is the most important thing I have learned about myself as a result of this process? What is most important of the things I have learned about my students?" Following these reflections, you might go on to ask, "Are there any similarities between what I learned about myself and what I learned about my students?" Although in this step you want to move closer to capturing your understanding "in a nutshell", you still want to keep important qualifications in mind. Sum up, but do not oversimplify.

- **Apply and share your new learning.** In reality, this step is an ongoing one. As well, it may be only partly conscious as your new understanding becomes integrated into your more general beliefs about teaching and learning. You can make conscious use of your new learning by planning ways to use the strategy or technique, and by planning ways to share what you have learned.

Networking Connection. Networking possibilities that could evolve from completion of the reviewing step include having everyone in your teacher network prepare a short vignette about what s/he learned as a result of carrying out a Curriculum Inquiry process. Your network may then want to look at similarities and differences across the group's experiences and develop a short summary of these for other teachers and administrators in their school division or region.

Important Considerations

1. **Avoid the tendency to oversimplify your findings and conclusions.** Teachers may give shape to their stories about trying a new strategy or using a new resource by summing up their descriptions with phrases such as, "The students just loved it." or "It was a total disaster." Such conclusions are likely to be overly generalized. Before using such descriptions, you need to ask questions such as:
   - "Did **all** students enjoy the experience? If not, which students did not appear as enthusiastic and involved? What might the reasons be for their lesser participation? "
   - "Was that lesson really a **total** disaster? What went right? Where and when did I feel things started to go wrong? What might be the reasons for this? How am I defining a 'good' lesson and what do I mean by a 'disaster'? Did I learn some important things through this experience that I can apply to future lessons?"

   Questioning the specifics of classroom events will not only produce a more accurate analysis and synthesis of your inquiry, but also give you the quality of information that could make a real difference to the learning of particular students.

2. **Involve your students in the review**. Teachers who have involved their students in Curriculum Inquiry and/or program evaluation report that this recognition of their ideas increased student motivation. You might ask your students to respond to questions such as, *What was the most important thing you learned when we used this strategy/technique?*

All the time and effort spent on the Inquiry process may not be put to best use if teachers do not take the time to really think through the implications of what happened -- questioning and qualifying each tentative conclusion to create an accurate portrayal of the results.

3. **Take the time to really think.** Teaching is a very demanding profession and teachers have described the implementation of Core Curriculum as increasing the demands on their time. All the effort and time spent on the inquiry process to this point may be wasted at this last step if you do not make time to reflect deeply about what happened during the experience. Use the times during your day that you are doing relatively straightforward physical tasks -- walking, biking, washing dishes, or washing your car -- as opportunities to review your inquiry process and question its meaning.

4. **Expect and accept new questions and uncertainties as a natural by-product of the Curriculum Inquiry process.** Inquiry is one of those processes that leads people to the conclusion that "the more we know, the more we realize that we don't know". As teachers make inquiry or reflection a part of their lives, the more questions they are likely to have and the less likely they will be to find satisfaction in pat answers.

   This does not mean questioning to the point of being unable to act. We must still plan and implement lessons based upon the best we know at the time. What it does mean is that we become more alert during our teaching to behaviours that might be related to our questions. It means we start noticing more and different behaviours and events, and continue to grow as teachers and as persons. Accepting that teaching is complex -- a science, art, and moral craft -- can also mean refusing to label yourself, your experiences, your students, or your colleagues as "right/wrong", "success/failure", or "good/bad".

The end of a Curriculum Inquiry process is also a time when new possibilities arise.

The inquiry process can lead us to "better/poorer" or "more adequate/less adequate" ways to approach teaching, but not to final answers. Within every answer is a new question and every ending contains a new beginning.

Guideline. *When synthesizing findings at the end of the reviewing stage, focus on your learning goals, include unexpected results, and avoid oversimplification.*

Chapter 4: Curriculum Networking

Overview

What?

Teacher networks have been described by many Saskatchewan teachers as the form of professional development they most appreciate.

Teacher networks are groups of teachers who meet regularly to discuss and/or work on areas of mutual interest. Networks involve teachers in a form of professional development that is group directed through democratic processes with each person having equal decision-making authority. While such groups can take many forms, Curriculum Networks, as conceived in the Connections Model, are groups of teachers who come together to offer mutual support as they undertake further implementation and renewal of Core curricula.

These networks could involve any of the following configurations:

- teachers who teach the same grade
- teachers who teach the same subject
- teachers who work in the same school
- teachers in a school division who share a similar interest (e.g., supporting students from low-income families).

How?

Instead of prescriptive mandates or packaged programs, teachers need time to work with each other, to think, analyze, and create conditions for change in their specific circumstances and in ways that fit their own needs. (Cochrane-Smith & Lytle, 1990, cited in Birchak, Connor, Crawford, Kahn, Kaser, Turner & Short, 1998, p. 3)

Curriculum Networks work best when participation is voluntary but supported by key administrators. Any interested teacher, or group of teachers, can start a Curriculum Network and invite others to participate. When formed, members would shape the network focus to support their particular professional development goals. As an initial step, members would likely seek the principal's support and that of relevant central office personnel but would not necessarily involve them in network activities. Network members set meeting times and places. At particular points, meeting time decisions might include requests for some release time to accomplish particular network tasks.

Network activities involve ones like the following:

- **sharing** challenges and successes in relation to a particular curriculum, instructional method, or evaluation tool
- **developing** curriculum units/modules
- **pooling and evaluating** resources
- **solving** curriculum-related problems
- **studying** alternative responses to curriculum dilemmas
- **dialoguing** related to a range of educational topics.

Network members decide on particular activities to undertake in a school term/year.

Why?

The benefits of networking have been described by teachers as including such things as outlined in the chart on the following page.

A teacher vignette

I've seen individual teachers and a school go from being teacher centred to student centred through professional development and growth at the school level. For example, a group of teachers in our school became involved in a Stirling McDowell research project that led to many other positive initiatives for the students, teachers, and the school division. At the centre of these changes was an atmosphere of collegiality that became stronger as teachers worked together on a number of projects. Some of the other changes included:

- *Four teachers began working on their Post Graduate Diplomas or Masters degrees (this is on a small rural staff of 12 teachers).*
- *At the school level, teachers saw a need to initiate and implement a pre-school program in which parents/caregivers attend with their child. The parents are pulled out for 1-hour discussion of topics they choose to learn about, such as parenting skills.*
- *This staff, consistently and persistently, have worked at increasing recognition of the importance of early childhood education through involvement on many committees at the local and provincial level.*
- *At the division level, this involvement and lobbying has meant the increase of the kindergarten day from 80 days to 100 days beginning in the fall (this is an impressive change in a period of financial restraint in our school division).*

"At the centre of the changes at our school was an atmosphere of collegiality that became stronger as teachers worked together on a number of projects."
(A Saskatchewan teacher)

Adding up the Benefits of Curriculum Networks

Developing support systems (in addition to)

+ decreasing isolation and increasing collegiality
+ directing Professional Development mutually
+ gathering and sharing appropriate resources
+ creating and sharing new units
+ developing alternatives to common challenges
+ enhancing constructive problem-solving abilities
+ increasing dialogue skills
+ gaining understanding of what works and why
+ growing in critical and creative thinking abilities

= Stronger Teaching and Greater Opportunities for Student Learning

A really important outcome has been the development of teacher teams who focus on resource-based learning. Using teams to develop units of study, teach units, and to reflect upon and renew units has led to many "open" classrooms and more sharing than I've ever seen before. One example of the collegiality and support has to do with the hiring of a new teacher last fall because of unexpected increases in enrolments. Half of the teaching staff showed up at school the Sunday before the teacher started -- making student booklets, running off units of study, making charts, name tags, and bulletin board displays for the new teacher's classroom.

Organization of the Chapter

This chapter is divided into three parts. Section 1 provides information and advice for starting and maintaining an effective, affirming Network. The remaining sections contain tools and information related to two different network activities:

- dialogue (sharing experiences, posing and solving problems)
- co-operative unit development and/or sharing and evaluating resources.

These activities are provided as suggestions only. An assumption underlying development of this chapter is that teachers who establish Curriculum

Networks are in the best position to decide the foci for meetings that would most benefit them.

Section 1: Creating an Effective Curriculum Network

The information in Section 1 can be used to plan for success.

This section contains advice related to:

- starting a teacher Curriculum Network
- creating a Community of Learners
- improving the quality of communication and dialogue.

Getting Started: An Overview of Actions and Decisions

An important aspect of establishing a Curriculum Network is planning and preparing for the first meeting. One key to a successful start is for teachers, before the first meeting, to think through their expectations for the Network.

Starting a Teacher Network: An Overview

Who?	How?	What?	When and Where?
• any teacher or group of teachers can start a network (across or within schools, grades, school divisions) • administrators may be invited to attend or participate but would not usually instigate the Network • a Community of Learners	• obtain support from relevant administrators • present idea to others • stress voluntary participation • propose a range of purposes or activities • devise means to prepare for first meeting	• focus on teacher-directed curriculum implementation • offer participants a variety of mutual supports • decide on group norms and processes, topics, and activities among members • select a facilitator or share this role among members	• regular meetings (at least once a month) • members decide on preferred time and length of meetings • members decide on preferred meeting place or rotation of location • members negotiate for some release time in return for particular results

Preparing for the First Meeting

The initial meeting of a teacher network is crucial. Experienced networkers suggests that many teachers decide to continue or drop out at this point. A few simple actions can make your first meeting more successful:

- suggest that all who are interested read the first section of this chapter (pp. 61-68)
- have interested teachers think about their expectations for the network, prior to the initial meeting
- set an agenda that includes the major decision items that make for smoother, more collaborative processes
- start and end on time.

Putting a few Key Concepts on Overheads or Charts

It may help to display charts of key concepts from the first section of this chapter in a visible place, even if everyone at the initial meeting has already read them. Participants can use the charts as quick references or reminders during decision making. Charts that might be useful include:

- Alternative Ways to Make Group Decisions
- The Facilitator's Role

- Effective Talking - Effective Listening
- What is Sharing? What is a Dialogue?

In subsequent meetings, you may wish to post other charts from this chapter as they appear relevant to the focus of the meeting.

Using a Pre-meeting Questionnaire

A questionnaire that helps members think through their main interests and concerns has many uses.

One way to facilitate the many decisions that will need to be made during the first Network meeting is to ask teachers interested in establishing a network to complete a questionnaire -- like the one on the following page -- prior to the first network meeting.

The "Network Participants' Interests and Concerns Inventory" can be used at the meeting in one or both of the following ways:

- members keep their questionnaires and refer to them when contributing ideas
- members who are willing to do so hand in their questionnaires at the end of the meeting, and a volunteer summarizes members' responses for use at a later meeting.

Setting the Agenda

Teacher/s who initiate the first meeting might create a tentative agenda that includes such items as those on the following Sample Agenda. The items included are ones that researchers and experienced teachers have described as important to the ongoing success of a network or work or study group (Birchak et al., 1998; Francis & Young, 1979; Pfeiffer & Company, 1993).

Sample of Agenda for First Curriculum Network Meeting

1. Welcome -- Getting Acquainted

2. Appointment of temporary facilitator and recorder

3. Decision Items:
   - How do we want to make decisions? (Refer to chart below, Alternative Ways to Make Group Decisions.)
   - Where and when shall we meet?
   - How often shall we meet and for how long each time?
   - Snacks?
   - Do we want to choose one facilitator for a school term? year? rotate this role? (Refer to chart, The Facilitator's Role, on p. 66.)
   - Discussion Items:
   - Norms for group behaviour (Refer to ones on p. 66 of this chapter or have members share the ways they answered Part A of the questionnaire.)
   - Topics and activities we are interested in pursuing. (These could include suggestions in Sections 2 and 3 of this chapter and/or ones that stem from participants' answers to Part B of the questionnaire.)

Sample Questionnaire: Network Participants' Interests and Concerns Inventory

Instructions: *Prior to the organizational meeting of the teachers' Curriculum Network, think about what is most important to you in relation to each of the following areas. After giving each topic some thought, complete each sentence stem. These topics are related to important decisions the network members will need to make. Advance thinking about these topics will ensure that you have a voice in decision making and support a more effective decision-making process. Please bring your completed questionnaire to the first meeting.*

Part A: Behaviours and procedures that I believe would contribute to a supportive network

The kind of atmosphere I would most appreciate during network meetings is one that feels:

_____

_____

_____

Behaviours that are important to me in a discussion are:

_____

_____

The most important thing I would like to gain from participation in a teacher network is:

_____

Part B: Things I would like the network to discuss, explore, work on

Those practices (teaching methods, strategies, evaluation/assessment techniques) I am most interested in learning more about right now include:

1. _____
2. _____
3. _____

A subject area in which I am interested in strengthening my teaching is:

_____ because _____

_____

Other topics I am interested in exploring include:

1. _____
2. _____
3. _____

A specific concern I have in relation to teaching and learning is:

_____

_____

Curriculum projects I would like to work on include (e.g., developing units, pooling/evaluating resources):

1. _____
2. _____
3. _____

Tasks to Accomplish and Charts that may Help

1. How will we make decisions?

Thinking through the consequences of network decisions for all members can foster mutual trust.

When groups are faced with difficult decisions, there is no substitute for mutual care and regard between all members. This mutuality takes time to develop. In the meantime, mutual trust can be nurtured or damaged by the type of decision making the group employs.

Many groups take the decision-making process for granted, having no formal procedure or using majority rule voting automatically. Other alternatives exist and can be matched to suit the needs of specific situations. Look at the following chart. Dependent upon its nature, your group may want to vary the way they make individual decisions.

Alternative Ways to Make Group Decisions				
Method	One person decides -- often it is the group facilitator.	Decision is made through voting and majority rule.	Decision is made through discussion and achieving consensus.	Decision is achieved after the group studies the problem further and proposes more alternatives.
Use/s	Basic "house-keeping tasks". Process decisions (e.g., when to encourage non-participants in a discussion).	Non-controversial issues and concerns.	Issues/concerns where consequences of decision are not the same for everyone.	Issues/concerns where consequences are not the same for everyone and group cannot come to consensus.

Groups make the best decisions when they have genuine concern for each other, know more than one process to use, and choose the best decision-making process for each situation by asking themselves "What is at stake and for whom?"

In relation to all group decisions, a basic question needs to be asked: "*What is at stake and for whom?*"

2. Do we need a facilitator?

Research, based on the experiences of many types of groups, has demonstrated that groups work better when they are facilitated well. Even in long-standing groups with members who relate well, groups need someone to get the meeting started and be responsible for overseeing the smooth operation of the meeting. Whether this responsibility is rotated, shared by two persons, or handled by one member, the importance of a facilitator should not be underestimated. The following chart is developed from a synthesis of relevant research, showing key characteristics and responsibilities of effective facilitators (Birchak et al., 1998; Francis & Young, 1979; Pfeiffer & Company, 1993).

The Facilitator's Role	
Qualities of Effective Facilitators	**Important Responsibilities**
✔ genuine ✔ open-minded ✔ energetic ✔ affirmative, has a positive view of human nature ✔ consistent and fair	✔ encourages openness ✔ helps group set overall focus, purpose -- negotiating individual agendas and helping to establish a group agenda ✔ follows processes, norms, and agenda group has established but is able to adapt to changing circumstances and needs ✔ develops strategies and language to support others to contribute, share ✔ reflects on group process and revisits group norms and decisions when necessary, helps group to evaluate their processes ✔ keeps the discussion flowing and supports equal participation ✔ starts and ends meeting on time ✔ ensures group decides on focus (agenda, time, place) for next meeting before adjourning

The primary purpose of a teacher network is to support teacher learning. Political purposes, such as developing a lobby group, are usually best fulfilled through other structures. Teachers in a network may decide at some point to create forums and structures outside the network when they see a need for some form of political action. This would preserve the network's emphasis on learning and personal-professional growth.

Those teachers who take a facilitative role may find it helpful to read *Classroom Curriculum Connections* in its entirety, because other chapters contain useful information and ideas related to networking. As well, all the material in this chapter supports the facilitator's role. The facilitator may wish to select discrete items from this document as foci for group reading and discussion, ensuring that each member has a copy of the selected material.

3. What norms do we wish to work from?

Effective, affirming teacher networks do not just happen. People make them work by being clear about the behaviours and procedures they desire and will support. Some ways you might prepare for a discussion of group norms is to:

- have all group members read this section of the Handbook before the meeting
- use Part A of the Sample Questionnaire (p. 63)
- post and refer to the following example of norms, developed by one group of teachers, before beginning the discussion.

Example of Group Norms

- keep "homework" to a minimum -- group decides when it is necessary
- no interrupting or side conversations
- start and end on time
- it is okay not to know something
- we do not just talk about our frustrations/problems, we find ways to overcome them
- we are all in this together -- we learn from each other.

Whatever approach you choose, return to your norms from time to time to see if they need to be changed or if new ones need to be added.

A teacher network might be an appropriate place for airing frustrations and concerns if members have ensured that processes and guidelines are in place that (a) lead to constructive actions and (b) preserve an atmosphere of professionalism.

4. Is there a place for complaining or venting in our network?

All teachers experience frustrations and problems at times. When these result from board/administrative decisions that teachers feel are detrimental to their students' learning or to the quality of their work lives, teachers need a safe place to express their strong feelings and share their concerns. Often family members or close friends fill this need. A teacher network might also be an appropriate place if the group has established guidelines to ensure that professionalism and a constructive atmosphere are maintained.

Example of Guidelines for Airing Concerns/Frustrations

- all network members share the concern and are affected by it equally
- all members have experienced similar concerns, whether or not they are affected by the one being raised
- Network members who raise the concern are interested in moving beyond it to constructive proposals for ways to respond once it has been sufficiently described (See *What? Why? How?* process, p. 74)
- all network members agree to discuss it for a set period of time
- members have and use norms of confidentiality and respect for each other and for all those implicated in, or affected by, the discussion
- "naming names" and "pointing fingers" is avoided
- as a group, members are prepared to share their concerns with the decision makers who hold shared responsibility
- Networks are not treated as lobby groups but rather as learning groups.

Curriculum networks work best when everyone who participates believes that diverse perspectives and opinions are useful, that each member has something of value to offer, and that her/his role is to learn from others' ideas, not to convince others that one idea is most correct.

Facilitators and/or members who wish to learn more about constructive ways to talk about issues and concerns could read Stone, D., Patton, B., & Heen, S. (1999). *Difficult Conversations: How to discuss what matters most.*

Building and Supporting a Community of Learners

A Community of Learners Approach

In a Curriculum Network created by teachers for teachers, there are no "experts" -- each member is considered to have important knowledge, experiences, and abilities to share. When seeking more detailed or complex information, members decide if they will (a) invite others to give presentations/demonstrate strategies/techniques or (b) undertake group study of the topic.

"To me open mindedness is exploring the 'coulds' instead of the 'shoulds' -- the possibilities instead of the perceived restrictions."
(A Saskatchewan teacher)

Communities of learners are characterized by people who:
- ask questions and listen carefully to the responses
- are open-minded and sensitive to others' needs and feelings
- are able to change their opinion when presented with good reasons/sound evidence
- like to share ideas, resources, and materials
- are not afraid to make mistakes or to admit to having made them
- use and value appropriate forms of humour
- believe co-operation is more satisfying and rewarding than competition.

The most important contributions a member can make to establishing a Community of Learners are:
- the belief that others have something to offer
- the ability to really listen in order to learn and grow.

Learning about and from Others

You can strengthen your belief that others, including those with different values and opinions, have genuine and important insights that you could benefit from by adopting some of the following means:
- Take time to get to know each other's personal visions and goals, formative teaching experiences, classroom situations, unique circumstances, and/or pressing concerns. You might wish to use an Interests and Concerns Inventory such as the one on p. 63 to facilitate this type of dialogue. Alternatively, you could develop your own structure for a dialogue that focuses on understanding individual member's values, experiences, beliefs, and concerns.
- Individually, or as a group, work through the section on learning in Chapter 2: Curriculum Reflection (pp. 26 - 32).
- Use a *What? Why? How?* process when your group tackles controversial issues (see the description of this process on p. 74).

Reflection Connection. When the goal is to develop a Community of Learners, Reflection Foci I (p. 21) and III (p. 26) are useful both to undertake individually and to share as a group.

Strengthening Communication Processes

Teachers know a lot about the qualities and skills of good listeners and effective speakers. The following chart is a quick reference tool for times when group members begin side conversations, interrupt each other, or engage in other detracting behaviours that occur in all groups in the heat of discussion.

All effective groups evaluate their processes from time to time, offering all members a voice in naming concerns and suggesting changes. Charts such as "Effective Talking - Effective Listening" are useful in maintaining a focus on processes instead of individuals.

Effective Talking	Effective Listening
✔ Come prepared to contribute -- think through the agenda's topic(s)/decisions *before* the meeting. ✔ Share your most important ideas or concerns, not *all* your ideas/concerns. ✔ *Ask* before assuming -- e.g., jumping in too quickly with advice, mistaking discouragement for anger. ✔ Build on others' thoughts -- e.g., "Going back to X's comment, I wonder if we could . . . ." ✔ Offer alternatives, as alternatives, not *better* approaches or solutions. ✔ Encourage more voices. Keep track of those who have not spoken and find ways to encourage their participation without putting them on the spot. ✔ Speak respectfully.	✔ Pay attention and show that you are paying attention. This means not just listening but *hearing*. ✔ Listen for the *whole* message -- this includes meaning, underlying feelings, intentions, and non-verbal messages. ✔ Listen for the *complete* message before evaluating it or beginning to develop your response. ✔ Ask the facilitator for a few minutes of quiet to think through what has been said before continuing with a fast-paced, complex, or heated discussion. ✔ Listen to learn, not to simply agree or disagree. ✔ Listen respectfully.

All effective groups evaluate their processes from time to time asking, *How are we doing? Are there some things we could be doing better?* Facilitators may wish to post the Effective Talking - Effective Listening chart and refer to it as a focus for network members when evaluating group processes, and when adding to or changing group norms.

Members who are interested in strengthening their abilities to support network or classroom dialogue may wish to read "Guidelines for Encouraging Dialogue, Listening and Communication", pp. 128-131 in *Teacher Study Groups: Building Community through Dialogue and Reflection* (Birchak et al., 1998).

Section 2: Dialogue, Sharing, and Problem Solving

When teachers use critical and creative thinking abilities and processes to work through topics of mutual interest or concern, they are not "just talking" but rather engaging in a meaningful, powerful form of professional development.

This section contains ideas and advice related to network meeting activities that focus on *talking in order to learn.* These include such foci as:

- discussing topics of mutual interest in ways that link theory and practice
- sharing ideas and experiences
- generating "solutions" to classroom-related problems
- developing a range of ways to respond to common dilemmas and concerns.

Learning from Sharing and through Dialogue

Professional development research related to "best practices" for teacher discussion groups emphasize the following guidelines:

- develop discussion processes that are safe, comfortable, and inclusive
- value the sharing of ideas and experiences
- extend discussions in ways that link theory and practice and strengthen critical and creative thinking abilities.

(See for example, Birchak et al., 1998; Pierce, 1998; Scribner, 1999; Sykes, 1996.)

The implications of this advice for Curriculum Networks include that members:

- develop a "community-of-learners" approach and norms for supportive discussions. (See earlier sections related to this approach.)
- incorporate times for both sharing and dialogue in their meeting structure.

A Time for both Sharing and Dialogue

Sharing and dialogue involve different formats, serve different purposes, but are equally valuable. Teachers experienced with successful networks recommend the use of both.

Sharing and dialogue are not the same -- they have different purposes and involve different processes.

> ***Sharing***, in this document, refers to the exchange of classroom ideas, quick tips, and rewarding/frustrating experiences.
>
> ***Dialogue*** is the term for discussions that link theory and practice, and support critical and creative thinking abilities.

Professional literature suggests that both types of conversations are important. Sharing is described as important because teachers value ideas and advice that can be applied with relative ease to their classrooms. Dialogue is seen as equally important because:

- not all classroom situations lend themselves to "quick fixes"
- context is an important factor in successfully applying many practices
- many instructional methods require understanding *why* you would use the practice and this understanding cannot be well described in 5 minutes or in five or six steps.

The following chart further develops these ideas and shows the best uses of *Sharing* and *Dialogue*.

It is important to find a format for dialogue that is respectful of individual differences in conversational styles and confidence levels.

What is Sharing?	What is Dialogue?
• an exchange of ideas and/or experiences but not formal presentations	• a discussion but not a debate
• may have a single focus -- such as the writing process -- or involve several topics	• has a focus on one complex issue/concern but is not an attempt to draw a single conclusion
• is personal, not authoritarian	• is personal and not authoritarian
• focuses on classroom practices but not necessarily the theories behind practices	• is an attempt to relate theory and practice, discussing not only *how* but also *why*
• useful for sharing tips, techniques, relevant personal experiences, and general advice, but not for developing understanding of more complex methods	• works best when people are willing to "dig deeper" and consider many alternatives
• requires thoughtful replies but not judgements	• requires open-mindedness and creativity but not an "anything goes" stance

What is Sharing? (continued)	What is Dialogue?
• relatively short contributions by most/all members	• helps participants develop principles and standards to use in assessing better or poorer alternatives
• may turn into *dialogue* at any point	• may turn into *sharing* at any point

A Dialogue is not a Debate

Dialogue is also used to refer to a type of discussion that is mutually supportive and respectful of cultural and gender differences in conversational styles. This type of discussion contrasts to a form of talk that is closer to the style used in formal debates.

Dialogue is a more gender sensitive and culturally inclusive form of discussion than informal types of debating. An emphasis on (a) talking and listening to learn and (b) a slower pace are two important characteristics of dialogue.

The following chart makes some distinctions between *dialogue* and *debate* that are useful to develop a safe, comfortable, and inclusive atmosphere during network discussions.

A dialogue is . . .	A debate is . . .
• a discussion with a focus of mutual interest	• a set of arguments related to a topic that may or may not interest everyone
• talk related to a topic that is perceived to be multifaceted	• focused on a topic perceived as having two sides
• developed from a reflective or inquiring stance	• developed from a competitive and persuasive stance
• inclusionary, valuing many perspectives	• exclusionary, focused on *"being right"* and only valuing your own perspective
• seeking common ground and connections between ideas	• seeking to dominate and override/ change others' ideas
• sensitive and responsive to feelings	• attempts to manipulate feelings
• listening empathetically	• listening strategically
• comfortable with silence, patient with many conversational styles and pace	• heated, fast-paced with frequent interruptions
• open to a type of humour that unites or "laughs with"	• sometimes sarcastic -- "laughs at"
• agreeing to disagree when common ground or consensus cannot be reached	• continuing until there is a "winner" or time runs out

Selecting Topics for Dialogue and Sharing

Two important aspects of finding a useful and manageable topic for sharing and dialogue are:

- *focusing a large topic more specifically*
- *ensuring that all members share a common understanding of the terminology used to describe the topic.*

Teachers in Curriculum Networks are in the best position to decide the topics of greatest interest or relevance to them at any one time. The network could use a form, such as the one in Section 1 (Interests and Concerns Inventory: Part B, p. 63), or spend some meeting time brainstorming a list of topics. Allow time to categorize your list into good topics for Sharing and good topics for Dialogue.

Some topics such as "Classroom Management" could become a useful focus for both Sharing and Dialogue. Teachers could prepare for the meeting/s on this topic by (a) selecting their favourite tip/technique for Sharing and (b) listing some questions/concerns related to larger classroom management issues for Dialogue time.

From Sharing to Dialogue to Action

One useful process for ensuring your network develops new understandings that can be applied in diverse classroom settings is to follow a format such as the following.

Focus, Share, Reflect and Discuss (Dialogue), Apply

- focus a larger topic more specifically
- share ideas related to the more specific topic
- follow up Sharing with Dialogue to connect practice to theory
- develop a mutual understanding
- apply understanding by creating units compatible with new understanding or sharing/evaluating related resources.

When teachers focus on a large topic more specifically, Sharing and Dialogue can be even more useful (e.g., instead of the broad topic "classroom management", focusing on specific management challenges related to student-centred instruction). As well, when a network group has developed a stronger, more shared understanding of a classroom practice, participants may wish to use this understanding in the co-operative development of units that incorporate that practice. The following is an example of the flow of one network's discussion and follow-up activities.

Example of Network Discussion and Follow-up Activities Related to Classroom Management

Meeting 1

- Sharing of Classroom Management tips and techniques.
- General discussion in which many questions, concerns, ideas, and issues were raised and recorded.
- One member noted that the group seemed to be moving into a Dialogue mode.
- Decision to focus next meeting on Classroom Management using a Dialogue process.

Meeting 2

Dialogue related to Classroom Management concerns and interests raised in last meeting. Group tried to follow their record of interests and concerns, but found the discussion "jumped around" and differences of opinion broke some group norms.

Example of Network Discussion and Follow-up Activities Related to Classroom Management
(continued)

Facilitator suggests they break into a small-group format and select the topic/s on the list of most interest to each small group. Members agree.

One group notes that the application of each of their ideas related to Classroom Management depends on other things such as:

- type of instructional strategy being used
- students' age
- lateness in the day/week
- how much experience the teacher or students had with the strategy or teaching method.

Decision to focus next meeting on Sharing related to managing co-operative learning groups and student-teacher conferences. Dialogue to follow, if time.

Meeting 3

- Sharing of tips and techniques related to managing co-operative groups and to student-teacher conferencing.
- One member asks *Why would I use this strategy in the first place? When would I use and not use this strategy?*
- Decision to focus Dialogue on the theory behind student-teacher conferences and co-operative learning.
- Decision to develop two language arts units co-operatively that incorporate these instructional and evaluation practices. Units are to include guidelines for classroom management. Group divides into two groups for working on units.

Meetings 4, 5, and 6

- Members select focus for units, divide tasks, do some between-meeting preparation, and work on developing the units.
- Bring resources related to units and share ways to use them.
- Units are completed. Members hold an "end-of-project" celebration.
- Network members decide on their next focus.

Linking Theory and Practice

A good way to maximize personal-professional growth in your network is to find ways to make links between theory and practice within all network activities.

The major differences between discussions focused on practice and discussions focused on theory are:

Practice	Theory
• "how to's"	• "why to's and when to's"
• generalizes in the interest of wider applicability	• qualifies in the interest of connecting to specific types of students and contexts

Ways to make connections between theory and practice within network dialogues include asking and seeking a range of answers to questions like those in the following chart.

Questions that Connect Theory and Practice

If you started with a discussion of the Practice, move to an understanding of the Theory by asking:

- *Why would I include this practice in my classroom?*
- *How will students benefit from this practice?*
- *How might I benefit from using this practice?*
- *Will some students benefit more than others from this practice?*
- *When would I use/not use this practice?*
- *How is this practice better than _____?*
- *Are there other practices that are better or just as effective as this one?*
- *What is the most important thing to know/remember about this practice?*

If you started with a discussion of the Theory, move to an understanding of the Practice by asking:

- *What relevance do these ideas have for me?*
- *What would this look like in practice?*
- *How could I implement this in my classroom?*
- *What are some classroom examples of this idea/theory/principle?*
- *What do you mean when you say _____? Would that look more like this practice or that one?*
- *How would I know if I was implementing that theory successfully? What would I be doing? What would my students be doing?*

Responding to Teaching Dilemmas and Recurring and/or Common Problems

A dilemma, by definition, pulls us in more than one direction and has no definitive solution. Many of the most important challenges that teachers face are like that -- if there were easy or final solutions to them, teachers would have found them long ago.

Teachers in Curriculum Networks will raise issues and concerns that are too important to dismiss and too complex to respond to by a Sharing process alone. Much literature concerning teachers' professional development converges on two ideas that are relevant to discussing thorny teaching/learning issues and complex teaching concerns. These are that:

- there is no effective substitute for reflection
- collaborative discussion networks/school teams can be beneficial in supporting the reflective process.

(For further discussion of these ideas see, for example, Birchak et al., 1998; Dantonio, 1995; Evans & Mohr, 1999; Fullan, 1992; Joyce, Wolf, & Calhoun, 1993.)

When important dilemmas/problems surface in Curriculum Networks, experienced educators and group facilitators recommend that time be given to:

- clearly defining the dilemma/problem in ways that all members agree with and understand
- clarifying why the dilemma/problem is important to tackle
- generating and evaluating a list of alternative "solutions" or ways to respond to the dilemma/problem.

Many problem-solving processes exist that offer help in completing these tasks. One example is the *"What? Why? How"* process described in the following chart.

The "What? Why? How?" Process

Three questions are important in solving problems that network members want to focus on:

- *What is the real problem here?*
- *Why is this problem important?*
- *How can we respond to it constructively?*

What is the real problem?

1. To clarify the true nature of the problem/dilemma and reach a shared understanding, ask:
   - *What is the real issue here?*
   - *Is there another issue behind this one that we are not discussing?*
   - *Do we all understand the dilemma/problem in the same way?*
   - *How are our experiences with this dilemma/problem different? The same?*

2. Allow time for individual reflection on these and other related questions. Allow time during a meeting for individuals to write personal responses and to clarify in writing how they would answer the questions related to problem definition or assign this as a between-meeting task.

3. When it comes time to share individual ideas, work towards achieving a common definition and understanding of the problem. Ask each other:
   - *What do you mean when you say ____?*
   - *Would this be an example of what causes you concern?*
   - *Does it look more like this ____ or this ____?*

Why is this problem important?

1. To clarify the importance of the dilemma/problem and the implications of not addressing it, ask:
   - *Why is this problem/dilemma so important?*
   - *How am I affected by this problem/dilemma? How are others affected?*
   - *What is at stake in tackling/ignoring this problem? for whom?*

How can we respond to it constructively? What might some workable solutions look like?

1. Brainstorm a list of all possible ways to respond to the dilemma or problem. Do not evaluate ideas at this point.

2. Categorize ideas in some way that moves you closer to action. For example, *Ideas that can be acted on now* vs. *Ideas that require further supports and other actions;* or, *Ideas for group action vs. Ideas for individual actions.*

3. Devise a means to evaluate ideas the group might act on without hurting the feelings of members who contributed the ideas. Rather than go through the list evaluating individual ideas, you might ask participants to select two ideas they like, and reflect on and describe *why* they like them. Ask, *What would a good idea look like to you? What conditions must a solution fulfill for it to be workable?*

4. Alternatively, to find out more about workable solutions, you could make a group commitment that everyone chooses one idea from the list, tries it out in his/her own context, and reports back to the group on aspects of the results of implementing it.

Section 3: Sharing and Evaluating Resources and Developing Units Co-operatively

This section contains suggestions for:
- sharing and evaluating resources
- collaborative unit development.

Sharing/Evaluating Resources

The implementation of Core Curriculum and the focus on Resource-based Learning have created many challenges for teachers and school divisions in terms of creating, sharing, and updating resource collections. Teacher Networks can adopt a positive approach to these challenges and members can offer one another a variety of mutual supports. A few ideas for a focus on resources are described in the following chart.

Many teachers have identified pooling, sharing, and evaluating resources as of great benefit to them in implementing resource-based units. There are a number of ways that a network could go about these activities.

Suggestions for Supporting the Collecting, Sharing, and Evaluating of Resources

Teachers who teach different subjects and grade levels might:
- focus a Sharing time on general tips for collecting resources (types of resources they have found useful, places to get free materials)
- brainstorm a list of resources available in the community, including human ones
- hold a resource exchange (teachers who have changed grade levels or subject areas may have materials to trade, as might parents with books that have lost their relevance as their children have aged)
- invite teacher librarian/s, resource-based learning consultant/s, other colleagues, and/or knowledgeable community members to assist in gathering and evaluating resources in all subject areas that portray human diversity in all its forms in positive, accurate, and respectful ways (Aboriginal Perspectives, Gender Equity, Multicultural Education, Special Education)
- check the Saskatchewan Education websit to find: bibliographies of recommended resources, including lists of free resources, evaluations of websites with digital resources and on-line databases that have been licensed for Saskatchewan schools.

Teachers who teach the same subjects and grade levels might:
- use the above ideas related to sharing, brainstorming, resource exchanges, and the collection of equitable resources
- select a subject area and a more specific focus -- have every member bring his/her favourite two or three resources related to it, and share ways each uses the resources in her/his classroom
- collect a variety of resources (print, video, audio, multimedia, pictorial, graphs/charts, on-line digital resources, names of knowledgeable community members) related to a particular unit, share them, and evaluate them using guidelines: from the related curriculum; related to gender equity, cross-cultural sensitivity, and other equity foci
- develop a number of multimedia "theme boxes" to accompany particular units and devise a means for rotating them among members
- invite a central office administrator/consultant, regional resource-based learning consultant, local librarians, and/or teacher librarians to a meeting. You might focus on members' resource needs; types of resources available in the division, region, or community; helpful ways to collect, evaluate, and share resources
- Early Childhood educators (pre-kindergarten to Grade 3): Collect a variety of small manipulatives, books, pictures/photographs, figurines, puzzles, and other table or desktop activities related to particular stories or themes to create theme boxes for language development and imaginative play. Such boxes can be used in a variety of situations by: teachers, teacher/teacher associate and child, "reading buddy" and child, parent/supportive adult and child, two children, or small group of children.

Approaches to Collaborative Unit Development

1. Begin with an awareness of some of the challenges of co-operative unit development and a positive attitude towards responding to them.

Some of the main challenges that may arise and ways to approach them are described in chart format.

A chart like "Co-operative Unit Development" may help your Network prevent or work through some common problems.

Co-operative Unit Development

Potential Challenges	Responses
• variations in the amount of experience and/or understanding individual members have with curriculum selected	• Develop a process for finding out "who knows what" in relation to the curriculum guide and subject area. Have members volunteer to learn about areas not covered. Incorporate time for group members to share what they know and have tried. Develop short definitions or descriptions of important concepts and terms as a group -- ones that all members understand and agree upon.
• time-consuming nature of collaborative development	• Brainstorm and post a list of tasks to be accomplished. Develop a process for deciding which tasks can be done as a group and those best done by individuals or pairs. Have all materials that might be needed, available in sufficient quantities. Work in, or adjacent to, a well-stocked school library, and an internet access site, if possible.
• variations in the time members have for working on development between meetings	• Discuss and develop guidelines for the amount of additional time to be spent -- ones that seem fair to all. Working beyond the agreed-upon hours would be a choice and not an expectation. Accomplish as much work as possible during network meetings.
• difficulties in dividing tasks equally	• Estimate time allotments and make adjustments to workloads as you go. Have members log the time spent on individual tasks. Share these and find ways to even out workloads.
• uneven quality among contributions	• Discuss this possibility openly before you start. Decide on a process for improving all contributions in a thoughtful manner or decide to leave improvements to quality up to individual members at the time they implement the unit. Do not make any group judgements about quality. Assume participants have done their best and will ask for suggestions for improvements if they want them. Do not offer suggestions if individuals do not ask.
• overenthusiasm at beginning – flagging energy towards end	• Discuss this possibility and agree to "start small". Your first unit may be more like a mini-unit. If you are successful in developing a one week unit, you may decide your group is ready to tackle a larger project.
• more ideas than time available	• Agree to use some of your "good ideas" as individual participants or in your next unit.

2. Brainstorm a number of approaches to use and select ones that best meet the groups' current needs.

Examples of possible approaches include:

- Select a subject area to pursue. In pairs or groups of three, develop a number of units in that subject area.
- Work on one unit as a large group and divide tasks as evenly as possible.
- Choose a particular instructional strategy/assessment technique of interest to the entire group. Each individual develops one lesson, or short sequence of lessons, that would appropriately incorporate the strategy/assessment technique (lessons may come from a variety of subject areas). Later, members can incorporate these into their own units.
- Develop a unit that integrates two or three subject areas and divide into groups by subject area. Develop a culminating activity that incorporates all the subject areas selected by the whole group.

3. Use the Core Curriculum guide in each subject area as your reference point.

To ensure your ideas are consistent with the curriculum's intentions and approaches, check with relevant sections of the guide. When in doubt, use the guide as the final arbiter. This can lessen conflicts between members with differing points of view and may strengthen your case when seeking release time for development activities.

Ideas for Unit Foci

The appendices of this Handbook are devoted to planning and assessment tools, in chart format. Appendix B contains suggestions for foci for the co-operative development of units. The suggestions for aspects of curricula to focus on include aspects from most subject areas and grade levels. Foci include particular curriculum elements that learning assessments, curriculum evaluations, and other forms of feedback have shown to be important.

Culminating Activities: Celebrating, Reflecting Back, Looking Forward

The end of a school term or year can offer network members opportunities to:

- celebrate accomplishments
- reflect upon challenges and rewards
- plan improvements to group processes and new topics/activities for next term/year.

End your network activities each term/ year in the spirit you want to resume them the following year. Reflect back over challenges and accomplishments, look forward to new projects, and celebrate the establishment of common bonds.

Teachers experienced with Curriculum Networks or teacher study groups recommend at least one full meeting, near the end of the year, to reflect on and discuss challenges, rewards, improvements, and new topics and activities. Also stressed is the community-building potential within celebrations of mutual accomplishments. In the end, enjoyment and the growth of common bonds are factors that will make your network successful. Take the time to honour all members' contributions and to celebrate the bonds that have developed.

Appendix A: Assessment and Planning Tools for Use in the Curriculum Inquiry Process

The following material contains tools you may need to complete each stage of the Inquiry Process.

Important Background for Use of Assessment Tool 2: Stages in the Implementation Process

Several things should be noted about Assessment Tool 2 on the following pages:

- ***It is intended to be used to assess one subject area or Core Curriculum Component or Initiative at a time.*** Teachers will be at different stages along the implementation continuum, depending on the particular subject area, C.E.L., or Core Component or Initiative in which they are assessing their professional growth.

- ***It is a tool, not a snapshot of reality.*** It should be noted that, like all charts, Assessment Tool 2 is a simplification of reality. It does not reflect all possibilities (e.g., that teachers' development may include aspects of several stages). As well, it is not intended to suggest that implementation is a completely linear process. In reality, effective implementation and renewal happen together and interactively, and adaptations of instruction, environment, and curriculum materials and topics to meet individual student needs can begin at most stages.

- ***Non-implementation is described separately because it is not a stage of implementation but may reflect some teachers' present situations.*** (See p. 11 for a description of non-implementation.) The most important understanding in relation to non-implementation is that teachers are responsible to implement Core curricula as intended and should seek support to do so. If some of the descriptors in non-implementation describe your present circumstances, refer to Reference Chart VIII, p. 18 for descriptions of some forms of support you may wish to seek.

- ***The Adaptive Dimension is not a stage of implementation.*** The Adaptive Dimension involves adaptations to instruction, environment, and curriculum materials and topics that can be made at the later stages of a teacher's involvement with implementation. The purpose of such adaptations is to meet students' needs better. Such adaptations can best be made after a teacher has some familiarity with a curriculum, that is, after completion of the Awareness Stage.

- ***Renewal Activities.*** While renewal activities are described separately, in reality these activities take place at the same time as, and interactively with, many of those in the Synthesis and Refinement stages. See pp. 11-12 for a description of renewal activities and guidelines for renewing curricula.

- ***Foundations and Renewal Stages, and actions that make up the Adaptive Dimension can happen interactively with other stages.*** Dotted lines for Foundations, Adaptive Dimension, and Renewal indicate the points at which these stages or activities might happen at the same time as, or interactively with, other implementation stages.

- ***The actions and activities within each stage describe things that teachers in that stage would typically be doing.*** Teachers can use these as a type of checklist to assess the extent to which they have fulfilled the main tasks of that stage and to plan next steps to take.

Assessment Tool 2: Stages within the Implementation Process

Note: Stages within the Implementation Process (Assessment Tool 2) are presented as a continuum that flows across pages 80-81. This continuum is not intended to reflect a linear process, but rather a recursive one. For example, as teachers explore (Exploration Stage) particular aspects within an area of study, new aspects may be noticed (Awareness Stage).

Foundations

- developing and implementing parent/guardian awareness materials and experiences
- establishing a classroom climate, rules, and procedures to support student-centred learning
- developing positive responses to increasing student diversity
- reflecting on personal teaching/learning philosophies and their implications

Awareness	Exploration
Knowledge • reading curriculum documents and other relevant materials • attending in-service for particular area of study or other Core Curriculum Component or Initiative • participating in other professional development activities related to Component/Initiative • knowing the elements and learning the language of a curriculum • examining recommended resources and/or other appropriate materials • noticing similarities and differences across Core curricula	***Knowledge*** • rereading particular sections of curricula as needed for planning and implementation
Classroom Practice • making comparisons between recommended practices and existing ones • relating new knowledge to past beliefs, experiences, and practices	***Classroom Practice*** • adding new practices to existing programs • adding new resources to existing programs • trying new instructional and evaluation strategies • incorporating new content • offering greater degree of student choice and active participation within learning process • trying sample model units in curriculum • observing student responses to new practices and materials
Community and Collegial Relationships • providing information/opportunities for parents and guardians to become informed about a particular Core Curriculum Component/Initiative • seeking supports	***Community and Collegial Relationships*** • providing information/opportunities for parents and guardians to experience important aspects of a Core Curriculum Component/Initiative • seeking advice in relation to implementing a curriculum • discussing positive outcomes, problem areas, and solutions with others

Adaptive Dimension

Foundations

- developing teacher Curriculum Networks, and/or peer coaching, classroom exchanges
- working toward a whole school policy and practices that support active student partication
- strengthening relationships with partents/guardians

Synthesis	Refinement
Knowledge • seeking further professional development related to challenges/problem areas • deepening understanding of a curriculum as an integrated whole, why each part of the curriculum is necessary, and how all parts work together • understanding the purposes and implications of recommended approaches/concepts	***Knowledge*** • maintaining a commitment to participate in continuous professional development in relation to implementation of Core Curriculum • internalization of philosophy and approaches of each subject area that you teach • understanding all Core Curriculum Components and Initiatives and how they work together
Classroom Practice • planning a total program consistent with the relevant curriculum, as opposed to adding new parts to an existing program • planning from curriculum objectives, matching strategies to objectives • continuing to develop and refine units/modules in accord with growing understanding of Core Curriculum • extending instructional and evaluation strategies based on observation and reflection on previous experiences	***Classroom Practice*** • developing a balanced practice that is manageable and consistent with Core Curriculum philosophy and central directions • recognizing the similarities that exist across Core curricula and use this understanding in planning and implementation (e.g., development of integrated units) • evaluating programs and teaching practices using principles of Core Curriculum
Community and Collegial Relationships • evaluating, acquiring, and using a wide range of resources, including those from the local community • involving parents in supporting implementation of activities, lessons, and units in areas in which you feel confident and comfortable • sharing new knowledge/abilities with colleagues	***Community and Collegial Relationships*** • involving parents and students in planning activities, lessons, and units • providing leadership in curriculum implementation and facilitating others' growth

Adaptive Dimension

Renewal

Planning Tool A: Suggestions for Professional Targets

Kindergarten and Elementary Level (Grades 1-5)		
Arts Education	**English Language Arts**	**Health Education**
[AE]In each strand, use a creative/productive activity with which you are familiar and comfortable and expand it to incorporate more opportunities for student choices and decisions -- use the creating process as your guide. (See the following sections of the arts education curriculum guide, 1991, for guidance: *Creative Dance* [Dance], *Planning from the Drama Curriculum Guide* [Drama], *Creating Sound Compositions in the Classroom* [Music], and *Guiding Students in their Creations* [Visual Art].) [SR]Introduce students to Saskatchewan arts and artists and use these as the focal points for activities involving all three Components: • creative/productive, • critical/responsive, and • cultural/historical.	[AE]Create a language-rich environment and use strategies that make regular use of classroom print and oral language. (See p.16, *Early Literacy,* 2000; pp. 76-77, Elementary Level guide, 1992.) [AE]Read to students daily from a variety of poetry, fiction, and non-fiction books including culture, race, gender, income, and abilities-sensitive perspectives. (See pp. 57-61, *Early Literacy,* 2000; p. 126, Elementary Level guide, 1992.) [AE]Employ a whole, to part, to whole approach when addressing graphophonic concepts. (See pp.18 and 144, *Early Literacy,* 2000; p. 48, Elementary Level guide, 1992.) [SR]Use a variety of strategies that move students from teacher guided and supported reading and writing to independence (See pp. 136-138, *Early Literacy,* 2000; pp. 80-81, Elementary Level guide, 1992.) [SR]Use a variety of assessment tools/techniques to determine students' strengths and needs, and to build on what students already know. (See pp. 5-11, *Early Literacy,* 2000; pp.153-184, Elementary Level guide, 1992.)	[AE]Implement the decision-making process in more than one unit. [AE]Try some of the suggested instructional strategies and assessment techniques within the sample units. [AE]Support all students in designing and carrying out an action plan within two units. [SR]Use a health education liaison committee effectively to support health education at your school. (See p. 29 of the curriculum guide.) [SR]Employ a variety of instructional and assessment techniques and make use of a variety of print and non-print resources, human resources, and web sites to support teaching and student achievement of the objectives of the curriculum.

[AE]Ideas for those in the Awareness and Exploration Stages.
[SR]Ideas for those in the Synthesis or Refinement Stages.
(See Assessment Tool 2.)

Note. Pages mentioned in the chart refer to those in the particular curriculum guide.

Middle Level (Grades 6-9)		
Arts Education	**English Language Arts**	**Health Education**
[AE]Provide many opportunities to further critical and interpretative thinking abilities using descriptions of the responding process for each of the four strands of arts education. (See sections entitled *Responding to Dance Presentations* [Dance], *Looking at Plays* [Drama], *Listening to Music* [Music], and *Viewing Art Works* [Visual Art].) [SR]Provide students with opportunities to develop collective creations and collaborate in group arts projects. (See Model Unit II, *The Collective Creation* [Drama].)	[AE] Plan a thematic, interdisciplinary, or author/genre unit that includes and balances the language strands. (See pp. 211-214, Middle Level guide, 1997.) [AE]Incorporate a range of texts (print, aural, multimedia, multigenre) into each unit. (See pp. 29-30, 157, 212, Middle Level guide, 1997.) [AE]Use a variety of strategies that develop students' listening and speaking skills (See pp. 77-128, Middle Level guide, 1997.) [SR]Demonstrate and scaffold a variety of language skills and strategies before, during, and after students listen, speak, read, write, represent, and view. (See pp. 85-90 [Listening], pp. 80-82 [Speaking], pp.162-176 [Reading], and pp. 132-138 [Writing], Middle Level guide, 1997.) [SR]Use a variety of assessment strategies to determine what students already know and need to know in each language strand. (See pp. 59-66, Middle Level guide, 1997.)	[AE]Use the decision-making process in your units to: • teach health education information and skills/abilities • help students learn health education information and skills/abilities • assess students' acquisition of knowledge and skills. [AE]Try some of the suggested instructional strategies and assessment techniques within the sample units and use the assessment data to evaluate student progress in each of the levels of the decision-making process. [AE]Support all students in designing and carrying out an action plan within two units. [SR]Develop and implement required and optional units that employ a variety of instructional strategies that are suited to the learning objectives, incorporate the yearly perspective, and meet the needs of students and community. Devise ways to assess and evaluate growth in understanding for self and students over an entire year/term.

[AE]Ideas for those in the Awareness and Exploration Stages.
[SR]Ideas for those in the Synthesis or Refinement Stages. (See Assessment Tool 2.)

Note. Pages mentioned in the chart refer to those in the particular curriculum guide.

Secondary Level (Grades 10-12)		
Arts Education	**English Language Arts**	**Health Education (Wellness 10) (Life Transitions 20, 30)**
[AE]Challenge students to research and explore contemporary ideas and issues in the arts. [SR]Provide opportunities for students to explore a range of styles, media, and works and support them in developing individual expressive styles.	[AE]Provide many opportunities to develop students' personal and critical responses to a range of oral, written, and visual texts. (See pp. 144-146, 158-162, Secondary Level guide, 1999.) [AE]Use developmental continuum of learning objectives and key language concepts for grade level to guide planning of units. (See pp. 20-44, Secondary Level guide, 1999.) [SR]Employ appropriate before (activating), during (acquiring), and after (applying) scaffolds for learning tasks. (See pp. 61-62, 103, 143, Secondary Level guide, 1999.) [SR]Use a variety of instructional and evaluation strategies with a focus upon increasing students' active participation in learning decisions. (See pp. 68-78, 83-93, 96-101, 111-116, 126-133, 163-170, Secondary Level guide, 1999.)	[AE]Use the decision-making process in your *Wellness* modules and the planning process in your *Life Transitions* modules to: • teach health education information and skills/abilities • help students learn health education information and skills/abilities • assess students' acquisition of knowledge and skills. [AE]Divide the class into small groups and support each small group in designing and carrying out an action plan. Repeat this activity in another module. [SR]Explore existing resources, including human resources within your health district and community. Work with the teacher librarian, resource-based learning consultant, and health education liaison committee to select resources for required and optional units. Use the resources in your classes and incorporate student input into the evaluation of their effectiveness and particular uses. [SR]Support students in designing and carrying out individual and small group action plans of their choice.

[AE]Ideas for those in the Awareness and Exploration Stages.
[SR]Ideas for those in the Synthesis or Refinement Stages .
(See Assessment Tool 2.)

Note. Pages mentioned in the chart refer to those in the particular curriculum guide.

Kindergarten and Elementary Level (Grades 1-5)		
Mathematics	**Physical Education**	**Science**
[AE]Provide consistent opportunities for use of manipulatives and problem solving. [AE]Incorporate regular use of estimation and mental math strategies along with calculator and paper-and-pencil work. [SR]Use a wide variety of resources (print, non-print, digital), Communication strategies (C.E.L.), group work, and class discussions to aid the students in the development of their mathematical understandings. [SR]Develop and implement a yearly plan that makes use of a wide variety of instructional strategies, and both traditional and authentic assessment. [SR]Provide students with opportunities to make connections between mathematical concepts within other subject areas and within their personal lives.	[AE]Provide students with regular opportunities to explore a movement pattern by using an Experiential Learning approach for initial lesson/s focusing on a Basic Movement Pattern. [AE]Implement Sample Lesson Plan #1 (physical education 1-5 curriculum guide, 1999, p. 371) that makes use of a number of stations and small group organization. Plan and implement lessons for several other Concepts in the Movement Perspective that make use of stations and a small group type of instruction. [AE]Develop a series of lessons that would achieve the Foundational Objectives of the Outdoor Pursuits Activity area. [SR]Ensure that all lessons promote the involvement of both genders. [SR]Develop and implement a yearly plan that incorporates the Active Living and Personal-Social-Cultural Perspectives into all units.	[AE]Provide an environment with rich multisensory stimuli/ materials related to the major topics and themes of the science curriculum and encourage students to participate in its creation, expansion, and maintenance. [SR]Provide/facilitate a regular forum for students to discuss their observations, questions, and explanations about natural phenomena using their own language (e.g., have a regularly scheduled sharing time for "science talks" where students share their ideas related to a science concept or "big idea"[6])

[AE]Ideas for those in the Awareness and Exploration Stages.
[SR]Ideas for those in the Synthesis or Refinement Stages.
(See Assessment Tool 2.)

Note. Pages mentioned in the chart refer to those in the particular curriculum guide.

[6] See Gallas, K. (1994). *The languages of learning: How children, talk, write, dance, draw, and sing their understanding of the world.* This book is written by a teacher who used this approach for all subjects, and particularly for the development and representation of science ideas (see Part II. Stories about Science).

Middle Level (Grades 6-9)		
Mathematics	**Physical Education**	**Science**
[AE]Provide consistent opportunities for use of manipulatives and problem solving. [AE]Incorporate regular use of estimation and mental math strategies, along with calculator and paper-and-pencil work. [SR]Develop and implement a yearly plan that makes use of a wide variety of instructional strategies, and both traditional and authentic assessment. [SR]Use a wide variety of resources (print, non-print, digital), Communication strategies (C.E.L.), group work, and class discussions to aid the students in the development of their mathematical understandings. [SR]Provide students with opportunities to make connections between mathematical concepts within other subject areas and within their community.	[AE]Provide an environment for all physical education lessons that attends to the Personal-Cultural perspective and has an emphasis on gender equity and other equitable and respectful behaviours. Use modeling, posters, and a variety of instructional and assessment techniques that support this emphasis. [AE]Incorporate regular use of Interactive, Independent Study, and Experiential Instruction strategies to incorporate and support the Foundational Perspective. Value and discuss students' out-of-class/school physical fitness activities. [SR]Provide opportunities for Critical and Creative Thinking (C.E.L.) in lessons. [SR]Develop and implement a yearly/semester plan that incorporates the Foundational and Personal-Cultural Perspectives into all units or series of lessons, and makes use of all five instructional strategies.	[AE]Provide an environment with rich multisensory stimuli and encourage students to participate in its creation, expansion, and maintenance. [SR]Provide many opportunities for students to use speaking and writing to clarify their ideas related to the science curriculum's foundational and related specific learning objectives. Provide opportunities for use of multiple ways for students to represent their ideas and to view, hear, and read about the ideas of others respectfully.

[AE] Ideas for those in the Awareness and Exploration Stages.
[SR] Ideas for those in the Synthesis or Refinement Stages.
(See Assessment Tool 2.)

Secondary Level (Grades 10-12)		
Mathematics	**Physical Education (Wellness 10) (Physical Education 20, 30)**	**Science**
[AE]Provide consistent opportunities for use of manipulatives, technology, and problem solving. [AE]Incorporate regular use of estimation and mental math strategies along with calculator and paper-and-pencil work. [SR]Develop and implement a yearly plan that makes use of a wide variety of instructional strategies, and both traditional and authentic assessment. [SR]Use a wide variety of resources (print, non-print, digital), Communication strategies (C.E.L.), group work, and class discussions to aid the students in the development of their mathematical understandings. [SR]Provide students with opportunities to make connections between mathematical concepts within other subject areas and within the world.	[AE]Provide students with regular opportunities to design and implement Independent Study projects (individual and small group) that focus on the Foundational Perspective and give value to out-of-school fitness pursuits and healthy lifestyles. [AE]Provide an environment for all physical education lessons that attends to the Personal-Cultural perspective and has an emphasis on gender equity and other equitable and respectful behaviours. Use the teacher and student gender-equitable assessment activities and questionnaires as a starting point for designing an equitable environment plan *with* students. [SR]Develop and implement a yearly/semester plan that incorporates the Foundational and Personal-Cultural Perspectives into all units or series of lessons and makes use of all five instructional strategies. [SR]Help students establish patterns of regular participation in meaningful physical activity.	[AE]Provide students with regular opportunities to refine their skills of scientific investigation, to pose useful/worthwhile questions, and to design effective investigations.

[AE]Ideas for those in the Awareness and Exploration Stages.
[SR]Ideas for those in the Synthesis or Refinement Stages.
(See Assessment Tool 2.)

	Social Studies	C.E.L.s and Core Initiatives (examples of C.E.L.s below)
Kindergarten and Elementary Level (Grades 1-5)	[AE]Use a variety of active learning strategies to develop understanding of the major concepts. [AE]Implement lessons/units that incorporate "Citizen Action Objectives" and activities that support their achievement. [SR]Use a variety of assessment strategies to collect data about students' growth in knowledge, skills/ abilities, and values.	[AE]**Communication (C.E.L.)** Provide opportunities for students to develop and express their understanding through a wide range of language and communication activities (e.g., act out the story, talk to each other about what they observe, paint a picture of their experience, draw a concept web). [SR]**Communication (C.E.L.)** Introduce the vocabulary, structures, and forms of expression that characterize the particular area of study (e.g., new concepts in social studies, responding processes in arts education, new vocabulary in stories or science resources) and continue to use these in a variety of appropriate situations throughout the year.
Middle Level (Grades 6-9)	[AE]Support students' research and problem-solving abilities through use of a variety of instructional approaches. [AE]Use a range of instructional strategies and/or activities that develop critical thinking abilities. [SR]Use a variety of assessment strategies to collect data about students' growth in knowledge, skills/ abilities, and values.	[AE]**Critical and Creative Thinking (C.E.L.)** Use various strategies to develop students' metacognitive abilities (e.g., 10-15 second wait time, individual reflection time before pair or group work, revisiting a topic, journal writing). [SR]**Critical and Creative Thinking (C.E.L.)** Introduce topics/activities that focus on different points of view or alternative perceptions, and support students in developing their own perspectives and giving reasons/citing evidence for their perspectives, positions, and conclusions.
Secondary Level (Grades 10-12)	[AE]Develop students' abilities to think critically about various controversial issues and points of view using strategies such as, dialectical reasoning. [AE]Engage students in a problem-solving process. [SR]Use a variety of assessment strategies to collect data about students' growth in knowledge, skills/ abilities, and values.	[AE]**Independent Learning (C.E.L.)** Provide a wide variety of activities, topics, and ways to learn so that students can determine their interests, abilities, and preferences. [SR]**Independent Learning (C.E.L.)** Introduce various strategies for students to use in meeting their own learning needs (e.g., how to make and organize notes from various sources/authors; how to organize and prepare papers, reports, or talks; how to find gaps in information).

[AE] Ideas for those in the Awareness and Exploration Stages.
[SR] Ideas for those in the Synthesis or Refinement Stages.
(See Assessment Tool 2.)

Planning Tool B: Knowledge of Needs, Supports, and Curriculum

1. ***Knowledge of self***. Select a focus for personal-professional growth based on a sound knowledge of your own strengths and weaknesses. You might ask questions such as:

   - *Are there aspects of one curriculum that I have been avoiding?*
   - *Is there a way for me to use some of my strengths to take on a challenging aspect of a curriculum?*

2. ***Knowledge of students***. Think about the backgrounds and needs of your students and how your focus might support their learning. In relation to your students, you might ask:

   - *Are there particular instructional strategies or assessment techniques that might best reflect the cultural backgrounds of my students and offer them further opportunities for learning?*
   - *What new skills/abilities do my students need? Are these taught in one particular subject area curriculum or do they cut across subject areas (e.g., research skills)?*
   - *Am I afraid of implementing certain processes or methods because I fear my students will become disruptive when learning them? Can I develop an action plan with my students that will help to avoid this?*

3. ***Knowledge of school and community***. Think about the degree of awareness in your school and community in relation to Core Curriculum specifics. In relation to your school/community, you might ask:

   - *Whose support do I need in order to implement this aspect of Core Curriculum more successfully?*
   - *Are supports in place or more readily available for some Core Curriculum Components or Initiatives than others? (See Chapter I, Assessment Tool 1 and Reference Chart VIII, to assess the potential barriers and supports in your context.)*
   - *Are there areas of parental/community education that need to be undertaken? If so, do I know the reasons for the inclusion of elements of Core Curriculum that I plan to implement?*

4. ***Knowledge of Core Curriculum***. Think about the Core Curriculum framework itself and your knowledge of the directions and approaches within particular curricula. To achieve a useful and productive focus, you might ask:

   - *Can I speak knowledgeably in support of the potential benefits of my targeted strategy/ technique and its importance to students' learning, if questioned by parents or administrators? (See Reference Chart II for an overview of the central directions and intentions of Core Curriculum and specific curriculum guides/materials as needed.)*
   - *Am I clear that the target I have selected is something I am mandated to teach? Am I prepared to show administrators and/or parents and guardians the specific pages of the curriculum documents that refer to and explain it? (See Chapter I, Reference Charts I, II, and VI, and relevant curriculum documents.)*
   - *Are there learning processes, teaching methods, or evaluation and assessment tools that are used in more than one subject area? (See the chart in Chapter 3, p. 46, for ideas.)*

Planning Tool C: Sample Curriculum Inquiry Plan

Professional Target: _____

Learning Goals for Self: _____

_____

Learning Goals for Students: _____

_____

Supports I will Need	Actions I will Take To Prepare	Actions I will Take To Implement	Indicators of Success	Assessment/ Evaluation Tools I Will Use
			(a) for me (b) for my students	

Record-Keeping System

What I Will Record	How I Will Record It

1. Example of Curriculum Inquiry Plan for English Language Arts - Middle Level (Grades 6-9)

Professional Target: Focus on listening strand.

Learning Goals for Self

- learn more about the listening process
- find and use strategies to help students listen critically, effectively, and respectfully
- employ before, during, and after scaffolds for listening.

Learning Goals for Students

- set purposes for listening in a variety of situations
- anticipate and predict the speaker's message
- follow the sequence of ideas expressed.

Supports I will Need	Actions I will Take To Prepare	Actions I will Take To Implement	Indicators of Success	Assessment/ Evaluation Tools I Will Use
Professional materials on listening Resources to use for listening activities with my students Modeling; collegial or professional support Student co-operation	Reread listening section in curriculum guide and find other professional resources listed in bibliography; ask colleagues and teacher-librarian for resource ideas. Seek release time to attend a workshop on listening and to visit a colleague who has instructional strength in this area. Talk with students about my goal and elicit their support in trying some new strategies, in developing a list of indicators of success and selecting areas to work on.	Introduce two or three key listening strategies during the course of a 2-3 week unit. Use an approach that emphasizes student's awareness of the strategy (e.g., explain strategy, model strategy, practice strategy, self-monitor use of strategy, review, and apply strategy in a new context). Document and reflect on each approach used and record the results.	**(a) for me** • knowledge of what curriculum guide and other resources say about listening • confidence to use several listening strategies and to adapt them to my students' needs **(b) for my students** • understand each listening strategy and be able to use and self-monitor • be confident that they can use and apply each listening strategy in a variety of situations including ones outside of school	Journal writing and notes in day planner Peer observation of my use of one of the strategies Observation rating scales of students' performance Student self-assessment checklist Pre- and post-test of students' listening abilities using an Informal Listening Inventory

Record-Keeping System

What I Will Record	How I Will Record It
• observations and reflections on students' reactions, use, and comments on each listening strategy • my successes, concerns, and questions for further research • notes and data collected on rating scales, student self-assessments, and performance assessments	• anecdotal notes on unit plan and in my day planner • completed checklists and other student assessments

2. Example of Curriculum Inquiry Plan for Aboriginal Content and Perspectives, Resource-based Learning and Independent Learning for - Secondary Level

(May be integrated into secondary native studies and/or arts education, English language arts, history, social studies)

Professional Target: Encourage the use of multiple resources to develop a sense of perspective and support Independent Learning in relation to prairie land use in the second half of the 19th century.

Learning Goals for Self

- develop an understanding of the interactions between government, settlers, and Aboriginal peoples as they relate to land use on the prairies
- collect and evaluate a broad range of relevant and appropriate resources including those from my community
- create positive and supportive instructional approaches to support students' independent learning abilities.

Learning Goals for Students

- develop an understanding of how prairie land use changed in the second half of the 19th century
- increase appreciation of the importance of using multiple resources to develop fair and accurate perspectives
- gain confidence in using different types of resources.

Supports I will Need	Actions I will Take To Prepare	Actions I will Take To Implement	Indicators of Success	Assessment/ Evaluation Tools I Will Use
Assistance from the teacher-librarian in selecting resources, including accessing on-line resources, teaching research skills Key administrators' approval and support of my plan, including field trips to historic sites Parent/guardian understanding and support, including help with off-site trips	Seek out community resources including Elders. Reread relevant sections of Native Studies curricula and other curricula in which this topic could be well developed. Gather print, non-print, and web site resources from Aboriginal and non-Aboriginal sources. Meet with parents to outline the planned research and activities.	Sketch prairie conditions of the period without using judgemental language. Teach lesson on identifying bias in resources. Bring community resources into, and take students out of, classroom. Provide opportunities for students to use different types of resources and work in groups.	**(a) for me** • feel confident in understanding other new perspective/s on this topic • identified new resources, including local community resources and new media **(b) for my students** • want and are able to discuss difficult issues • show respect for speakers • talk about/ describe their new perspectives on historical issues	Notes in day planner/journal Observation checklists/rating scales Peer and self-assessment tools Products of learning including reports, notebooks, photographs, videos

Record-Keeping System

What I Will Record	How I Will Record It
• time spent in planning and implementing • availability, diversity, and utility of resources • problems and their resolutions • the range and variety of students' responses, • students' interest/lack of interest in the subject • changes in students' attitudes/behaviour • cultural concerns and successes	• make notes in day planner • keep annotated list of resources • create file of all interesting/significant moments including involvement of community members

3. Example of Curriculum Inquiry Plan for Personal and Social Values and Skills (C.E.L.) Integrated into all Areas of Study in a Multigrade, Elementary Level Classroom

Professional Target: Develop students' Personal and Social Values and Skills across all areas of study in this Elementary Level multigrade classroom.

Learning Goals for Self

- to refine my abilities in observing students
- to develop students' abilities to learn in classroom environments that incorporate democratic processes
- to refine my knowledge of, and ability in, developing students' Personal and Social Values and Skills

Learning Goals for Students

- to develop self, interpersonal, and cross-cultural understandings
- to participate in shaping classroom environments that incorporate democratic processes
- to practise and reflect upon co-operative, respectful, and empathetic behaviours.

Supports I will Need	Actions I will Take To Prepare	Actions I will Take To Implement	Indicators of Success	Assessment/ Evaluation Tools I Will Use
School environment that supports democratic processes Additional knowledge regarding the C.E.L. of Personal and Social Values and Skills	Talk to principal and other staff members regarding the development of school and classroom environments that incorporate democratic processes. Reread the chapter on Personal and Social Values and Skills in *Understanding the Common Essential Learings*. Refer to the Objectives for the C.E.L.s on Saskatchewan Education's web site and download the Elementary Level objectives for Personal and Social Values and Skills.	Allow for student participation in all aspects of school life. Discuss with students those virtues needed for a classroom environment that will support their learning and development (e.g., kindness, honesty, patience, generosity). Explore, with students, the consequences that individual actions have for other others. Develop, with students, classroom rules through a discussion of rights and responsibilities.	**(a) for me** • ability to obtain observational data for each student at least once every 2 weeks • ability to involve students in all aspects of classroom life through democratic processes • ability to incorporate the C.E.L. of Personal and Social Values and Skills in all classroom activities **(b) for my students** • ability to work collegially in many different groupings • ability to participate in discussing, setting, and honouring classroom rules	Observation checklists Weekly journal writings (by self and students) Pre- and post-questionnaire (for students)

Record-Keeping System

What I Will Record	How I Will Record It
• student behaviours and language • my reflections • student's thoughts and feelings	• observation checklists • journal writings • pre- and post-questionnaire

4. Example of Curriculum Inquiry Plan for Health Education - Middle Level (Grades 6-9)

Professional Target: Use the decision-making process of health education.

Learning Goals for Self

- understand better the decision-making process of health education
- use the decision-making process as the framework for planning two health education units
- increase my abilities to teach a health education unit using a variety of instructional methods and assessment techniques that correspond to the three levels of the decision-making process.

Learning Goals for Students

- know where and how to access expert sources of information
- realize that some of life's problems have more than one solution and be able to generate several different ways to solve a problem or address an issue
- establish personal goals and develop step-by-step plans to meet them.

Supports I will Need	Actions I will Take To Prepare	Actions I will Take To Implement	Indicators of Success	Assessment/ Evaluation Tools I Will Use
Additional materials/resources related to implementing the required or optional unit(s) being planned for the grade level(s) that I teach Release time to attend workshops for the renewed Middle Level Health Education Curriculum (1998) A colleague with experience and interest in Middle Level health education to act as a support person	Reread pages 8-10 in the curriculum guide where an overview of the decision-making process is provided and pages 17-19 where incorporating the Common Essential Learnings within the decision-making process is described. Gather and evaluate appropriate student and teacher resources within the school, school division, and community. Attend an Orientation workshop and a Unit Planning workshop, preferably with at least one other teacher and the teacher librarian from my school. Make connections with community agencies and organizations.	Post a chart-size copy of the decision-making process in our classroom so the students and I can refer to it. Teach the sample Decision-making Process Unit in the curriculum guide and try to include a variety of interactive, experiential, independent, direct, and indirect instructional strategies. Have all students design and carry out an action plan in two units.	**(a) for me** • ability to initiate each unit by having students reflect on what they already know • ability to use several instructional strategies in Level A of the decision-making process, allowing students to extend their knowledge in a variety of ways • ability to help each student focus on a personal challenge **(b) for my students** • ability to gather and evaluate information from a variety of sources • ability to list a variety of ways to solve a problem, address an issue, or meet a personal challenge • ability to design a step-by-step plan to attain their personal goals	Rubric to assess design elements of an action plan Student checklists and anecdotal records providing evidence of their abilities to evaluate sources of health-related information and the information itself Student work samples such as the criteria used to select a particular support person Student produced matrices used to evaluate alternatives against specific criteria Products such as action plans, journals, or logs

5. Example of Curriculum Inquiry Plan for Using Resource-based Learning In Mathematics 20

Professional Target: Use Resource-based Learning in mathematics (Mathematics 20 - Consumer Mathematics).

Learning Goals for Self

- locate and select appropriate resources (evaluation criteria)
- set up and use a spreadsheet.

Learning Goals for Students

- demonstrate an understanding of credit and employ the appropriate mathematics in determining the cost to the consumer of various types of credit
- display an awareness of the kinds of taxes encountered by the consumer and demonstrate the ability to calculate these taxes using the appropriate mathematics.

Supports I will Need	Actions I will Take To Prepare	Actions I will Take To Implement	Indicators of Success	Assessment/ Evaluation Tools I Will Use
Training in computer (spreadsheet) use Training in locating and selecting resources Representative/ contact with a financial institution Representative/ contact with the municipal, provincial, and federal governments (specifically from each tax branch)	Approach the Technology Support person for the school/division to set up a training session on use of spreadsheets. Approach the Teacher-Librarian and/or Resource-based Learning Consultant about learning how to locate and evaluate potential resources for this unit. Contact local financial institutions regarding pamphlets, speakers, videos, etc. dealing with credit. Contact local municipal government regarding pamphlets, speakers, videos, etc. dealing with local taxes. Contact taxation businesses and/or the provincial/federal government regarding resources on provincial and federal taxes.	Collect materials for the lessons from institutions. Arrange for speakers. Book the computer lab and familiarize my students and me with any related procedures or rules. Have students explore their family/personal experience and attitudes regarding credit (and taxes) for future classroom discussions. Create fictitious information slips for use in determining credit values and taxes.	**(a) for me** • time in computer lab was productive; I do more with students around the concept of spreadsheets and in the computer lab in general • confidence in contacting community and external businesses and institutions for information/support • confidence in locating and evaluating resource materials **(b) for my students** • ability to communicate their understanding of credit • ability to utilize spreadsheets appropriately when dealing with credit	Participation checklist for classroom discussions on the topics of credit and taxes Students' reflective journals -- use a rubric to score Completed project where students investigate a desired career, its wage, and predict their taxes and tax deductions for that career Completed application form for a fictitious credit card Completed fictitious income tax form (using computer software)

Record-Keeping System

What I Will Record and How I Will Record It

- participation in classroom discussions -- observation checklists
- students' interesting comments and questions -- anecdotal records
- my plans and ways they changed – Curriculum Inquiry log
- annotated resources list (including community contacts) -- resource folder

6. Example of Curriculum Inquiry Plan for Use in Practical and Applied Arts (PAA) Courses: Work Study Component (Secondary Level)

Professional Target: Establish community partnerships to be used as learning environments.

Learning Goals for Self
- research the community environment and evaluate community resources
- establish networks.

Learning Goals for Students
- explore, develop, and refine work-based skills related to classroom learning
- develop Conference Board of Canada (CBC Profile) Employability Skills
- develop and apply C.E.L.s beyond classroom learning.

Supports I will Need	Actions I will Take To Prepare	Actions I will Take To Implement	Indicators of Success	Assessment/ Evaluation Tools I Will Use
Release time to: • research the community resources • contact and secure community work study placements • monitor students in the community Resources to support monitoring of students in the community: • administrative support to timetable PAA course at an appropriate time of day to facilitate community work-based learning • support from other staff members to allow flexibility for work-based learning • awareness and approval of parents to support students involved in community work-based learning	Read work study guidelines and work study preparation and follow-up modules in PAA curriculum documents. Attend a summer short course on work study and the principles involved in developing and instituting a work study component. Study the curriculum and develop a training/ learning plan for students in a workplace setting. Establish community partnerships or contacts for work placements of students. Provide presentations to school staff and parents/guardians related to work study within a PAA course. Develop an evaluation plan and monitoring forms for student evaluation.	Involve student, school administration, community employers/business, and parents in a discussion of the roles and responsibilities for implementing work study. Take student on a field trip to observe workplace employees in operation. Provide opportunity for the student to visit a workplace independently to interview an employee. Provide an opportunity for the student to be interviewed by a potential employer for a potential work placement. Document work-based learning challenges and solutions, and provide feedback.	**(a) for me** • list of community resources • development of community networks • positive involvement of students • parental interest/support **(b) for my students** Development of work-based skills such as, abilities to: • work collegially with others • communicate information and needs • learn specific job-related knowledge and skills • reflect on and learn from experience	Parent evaluation form designed to provide feedback on work study Student evaluation and feedback on their experience listing challenges and benefits Journal entries by students relating to work study placement Student presentations to the class on work study placement Observation checklists during work study that monitor learning in the workplace Anecdotal record keeping of student in-class performance Products of learning such as, portfolio assessments and revised training plans

7. Example of Curriculum Inquiry Plan for K-5 Science

Professional Target: Plan, organize, and use a hands-on approach to teaching inquiry in science in my classroom.

Learning Goals for Self

- learn more about the when, why, and how of using a hands-on approach to inquiry
- develop a classroom learning environment that supports this approach
- find and try experiments/inquiry activities and while doing so, think about how to organize each activity for my students
- learn about classroom management techniques that would support the hands-on approach.

Learning Goals for Students

- learn about inquiry methods so that they can make meaning of the hands-on tasks
- become more involved in science and take responsibility for their learning
- know how and when to use the equipment for the activities
- develop responsibility for setting up and cleaning up their work stations, and cleaning the classroom.

Actions I will Take To Prepare	Actions I will Take To Implement	Indicators of Success	Assessment/Evaluation Tools I Will Use
Attend • Sciematics Conference • workshops (provincial and division) **Read** • curriculum guide • books, journals, newspapers **Lesson planning** • find several hands-on activities that support curriculum objectives • find required equipment and supplies (see curriculum guide) • plan instructional and classroom management strategies • prepare students for activities (pre-lab) **Assessment** • develop a list of indicators of success • list tools I will use to determine their achievement • develop a rubric to assess the activity and another to assess student performance	**Rules and routines** • develop with students • discuss rules and routines, and consequences • model, review, and adapt if needed • use consequences if rules are not followed and develop plan with students to modify behaviours as needed **Scientific methods** • review some of the inquiry methods used in science and adapt terms to suit age level of students • walk students through an experiment/activity and describe the inquiry methods that they will be using (e.g., measure more than once, repeat experiment, and compare and discuss results) • Students do experiments/ activities and discuss and share discoveries and inquiry approaches used **Reflection** • document what went well and what needs improvement • follow-up discussion with students, colleagues, consultants • *try again*	**(a) for me** • learned to use the hands-on approach effectively • learned about and use inquiry methods • refined classroom-management techniques for effective teaching using the hands-on approach • feel confident to use the hands-on approach in this and other subject areas (e.g., mathematics) **(b) for my students** • students can do experiments and activities independently after directions are given • students demonstrate they understand inquiry methods in the way they carry out the activities and in their reports (oral and written) • set up and clean up is smooth and effective	**For assessing the approach and my goals** • use the rubric for activity, reflect upon and assess effective classroom management techniques during use of hands-on approach • use a journal to document and reflect upon productive/ supportive and non-productive behaviours for each activity • ask administrator and/or colleague to observe lesson and provide feedback • videotape lesson for observation and reflection **For assessing students** • use a rubric for performance assessment of each activity • develop a rubric to assess oral and written reports (for groups and individuals) • observation checklists • self-assessments

8. Example of Curriculum Inquiry Plan for Secondary Social Studies

Professional Target: Thinking in Social Studies 30.

Learning Goals for Self
- learn more about the dialectical thinking process
- develop effective ways to teach students the dialectical thinking process.

Learning Goals for Students
- develop a clear understanding of the dialectical thinking process
- know the process to follow when engaged in dialectical thinking
- apply the dialectical thinking process to several social studies issues.

Supports I will Need	Actions I will Take To Prepare	Actions I will Take To Implement	Indicators of Success	Assessment/ Evaluation Tools I Will Use
Curriculum documents Release time to talk with and observe colleagues Time to prepare lesson plans and locate resources	Read the relevant sections of the Social Studies 30 Curriculum and activity guides. Talk with colleagues who have been successful with helping students to understand and apply the dialectical thinking process, to learn about their instructional strategies. Observe a colleague in the act of taking students through the dialectical thinking process. Prepare lessons, including current examples, that will develop students' dialectical thinking abilities.	Introduce students to the dialectical thinking process using examples that address relevant issues in their daily lives. Provide several opportunities for students to learn the dialectical thinking process using simple, relevant examples before having them apply the process to social studies issues. Encourage students to collaborate, using talk to help them learn from each other, as they develop a clear understanding of the process.	**(a) for me** • developed a useful set of lesson plans and instructional examples to assist students in learning the dialectical thinking process • feel confident to use this instructional approach with students in other classes/subjects • enjoyed helping students learn critical thinking skills that they can apply in their daily lives inside and outside school **(b) for my students** • gained confidence in understanding and using the dialectical thinking process • understand the applicability of the dialectical thinking process in daily life	**(a) for me** • checklist of the steps I use in teaching students the dialectical process • peer observation and video of my instructional strategies when taking students through the dialectical thinking process **(b) for students** • checklist for steps of the dialectical thinking process • application of the dialectical thinking process for an additional social studies issue

Record-Keeping System

What I Will Record	How I Will Record It
• difficulties encountered and how those difficulties were overcome • students' experiences and responses	• anecdotal notes related to each step of my instructional plans

Planning Tool D

(a) Developing a Range of Indicators of Success: Examples of Teacher Growth Related to Attitudes and Values[7]

Types of Affective Learning	Indicators of Success
Growth oriented • values professional growth • believes teachers are learners • believes in own capacity/ ability to learn and grow	*Continues to increase frequency with which s/he:* • develops meaningful, personal-professional growth plans and is able to discuss the challenges and benefits they contain • speaks of self as a learner; discusses/describes things learned from students, colleagues, books/articles, television/electronic media, travel, and other personal experiences • shows eagerness to participate in relevant professional development activities in school, district, region, or province • prepares for participation in professional development and/or personal growth activities • is able to find something useful within almost all professional development activities, even those mandatory ones that do not appear to match own abilities, interests, and needs • seeks out other perspectives, ideas, practices; interested in the practices of colleagues; visits other classrooms; frequents school or division resource centre, local library • finds opportunities for learning within a diverse range of experiences.
Open mindedness • questions new ideas and practices with an attitude of genuine interest and openness • respects the rights of others to hold opinions different from self • values a variety of perspectives	*Continue to increase frequency with which s/he:* • asks questions with a need to know, as opposed to a need to confirm own opinion • tries out new practices • seeks out new personal-professional growth experiences • does not draw conclusions quickly; continues to question, seek more information, and other alternatives • tries a new practice several times and with added input/supports as needed to "make it work" • listens carefully and without interrupting • speaks positively about the varied abilities, backgrounds, and interests of all her/his students • invites parents/community members into classroom to share their areas of knowledge/interest/expertise • plans lessons/units to incorporate a variety of strategies, resources, and perspectives.
Flexibility and reflectivity of thought • values critical, creative, and moral reasoning frameworks and processes • believes in and supports the use of more than one means to an end • values appropriate uses of humour within learning processes	*Continues to increase frequency with which s/he:* • qualifies statements and conclusions • questions generalizations for their application to specific contexts, situations, and diverse student populations; suggests alternative ways to do things or think about things • sees and can describe the worth contained in unusual, original, controversial, or unexpected student answers, products, solutions, or procedures • uses and appreciates appropriate humour as a means to lessen risk factors and/or destructive forms of competitiveness within learning environments • willing to laugh at self, describe own past "failures" or "mistakes" in a humourous light to show others that one can survive failure, learn from it, and move on.

Note. *Chart does not contain all possible descriptors or indicators of learning.*

[7]Adapted from *Assessing affective dimensions of professional growth*, Finney, 2000.

Planning Tool D (continued)

(b) Developing a Range of Indicators of Success: Student Examples

Types of Learning	Indicators of Success
Values/Appreciations • learning to value the process of learning itself • learning to value her/his own ideas and abilities • learning to appreciate the results of effort and perseverance	***Shows enjoyment and improved work habits*** • eager to begin the task • works with concentration • solves problems or seeks help appropriately • overcomes setbacks • shows a positive change in work habits • shows excitement, full of ideas (writes a lot, contributes many ideas to discussions, takes plan further than expected, uses new/unique/additional materials) • appears pleased/satisfied with progress • sees uses for skills/abilities beyond the classroom • likes the end product (favourable self-assessment, wants to show results to others, interested in the products of others, sees a use for product beyond the classroom)
Knowledge • learning new ideas, factual information • deepening understanding of concepts, principles, theories, elements (e.g., of music, art, drama, or dance)	***Demonstrates understanding and retention*** • follows a line of thought, attends to presentations/mini-lessons/videos, etc. • asks a (genuine) question related to idea, concept, etc. • selects one thing learned in a lesson/unit and can describe it, draw it, write about it • incorporates new vocabulary appropriately into everyday speech • summarizes what was learned in oral, written, or other formats • recognizes main ideas (e.g., underlines, draws concept maps) • applies learning to a new situation spontaneously or when asked • makes comparisons, suggests metaphors, similes
Skills/Abilities • developing respectful/considerate social interaction skills/abilities • learning the steps in a new technical skill/ stages in a process	***Increases positive behaviours*** • willing and able to work with all class members in the same positive manner • does not use/lessening use of "put downs", gender-biased jokes, etc. • gets to a later step/stage before seeking assistance on subsequent occasions

Appendix B: Ideas for the Development of Units

	Arts Education	English Language Arts	Health Education
Kindergarten and Elementary Level (Grades 1-5)	Plan units of 4 to 5 lessons in each strand that incorporate the three components.	**Emerging Phase** Plan a mini-unit focused on a predictable book that uses whole, to part, to whole instruction of important skills/abilities. (See pp. 144-149, *Early Literacy*, 2000.) **Developing Phase** Plan a unit that employs both shared and guided reading and writing activities. (See Elementary Level guide)	Develop resource-based units that include the incorporation of community resources to achieve curriculum objectives. (See the curriculum guide, p. 49 for suggestions and sample unit *A Healthy Body*, p. 119.)
Middle Level (Grades 6-9)	Plan a unit that makes use of students' ideas and experiences as its focal point/ theme.	Plan a thematic, interdisciplinary, or author/genre unit that incorporates and addresses key objectives from each of the language strands. (See pp. 211-374, Middle Level guide, 1997.)	Develop resource-based units that include the incorporation of community resources to achieve objectives and incorporate the yearly perspective. (See curriculum guide, p. 21 for suggestions and *The Tobacco Industry*, sample unit for Gr. 9, p. 365. Another example is the *HIV/AIDS Education* unit for Gr. 8, p. 293.)
Secondary Level (Grades 10-12)	Develop units/modules that further students' understanding of the differing types and functions of art in various cultures, past and present.	Plan a thematic (e.g., ELA A10, pp. 47, 181-209; ELA 20, pp. 47, 243-247; ELA A30, pp. 48, 278-314) or issue-focused (e.g., ELA B10, p. 47, 210-242; B30, p. 48, 319-361) unit that incorporates a diversity of literature (traditional and contemporary, multicultural, global, and alternative viewpoints) and addresses the language concepts for the grade level	Develop unit/s that incorporate the decision-making process of *Wellness 10* or the Planning Process of *Life Transitions 20, 30.* (See p. 16, *Life Transitions* curriculum guide for suggestions. Examples: (a) *Health Self-Care* is a required module of *Life Transitions 30.* (b) *Conflict in Relationships* is another required module of *Life Transitions 30* that offers students opportunities to practise important skills/abilities related to Level A of the Planning Process.)

	Physical Education	Mathematics	Science
Kindergarten and Elementary Level (Grades 1-5)	Develop unit/s that incorporate all five instructional approaches (see curriculum guide, 1999, pp. 158-165). Ensure that all class lessons promote the involvement of both genders.	Develop integrated unit/s (theme or strands) that involve students in reading, listening, speaking, writing, drawing, and/or dramatizing their mathematical understanding. (See sample units, pp. 603-758, for examples and helpful suggestions.)	Develop unit/s that provide regular opportunities for hands-on manipulation of materials to support understanding of major concepts and/or to collect data.
Middle Level (Grades 6-9)	Develop unit/s, modules that incorporate all five instructional approaches (see curriculum guide, 1999, pp. 158-165). Ensure that all lessons promote the involvement of both genders. Provide opportunities for Critical and Creative Thinking (C.E.L.).	Develop integrated unit/s (theme or strands) that involve students in reading, listening, speaking, writing, drawing, and/or dramatizing their mathematical understanding. (See sample unit in curriculum, pp. 1007-1024 for an example and pp. 1025-1115 for other ideas.)	Develop unit/s that provide regular opportunities for students to ask and answer their own questions about the natural world through self-designed scientific explorations.
Secondary Level (Grades 10-12)	(Wellness 10; Physical Education 20, 30) Help students establish patterns of regular participation in meaningful physical activity. Help students understand how leisure and the other strands of Wellness (physical activity, healthy eating, stress management, and relationships) are interrelated. Ensure that all lessons promote the involvement of both genders. Provide opportunities for Critical and Creative Thinking (C.E.L.). Support students in achieving their maximum potential.	Develop a resource-based unit that encourages students to actively explore mathematical concepts in a real-world context and to discuss their understanding. (See sample unit in curriculum, pp. 98-113, for an example.)	Develop unit/s that provide students with opportunities to compare critically their views of the world with the views expressed by scientists.

	Social Studies	Core Curriculum Components and Initiatives
Kindergarten and Elementary Level (Grades 1-5)	Develop unit/s that incorporate a variety of instructional strategies that develop understanding of major concepts and use authentic assessment techniques to assess growth in knowledge, skills/ abilities, and values.	Develop units that incorporate opportunities for students to reflect on the benefits of co-operative, respectful, and empathetic behaviours (Personal and Social Values and Skills, C.E.L.). In co-operation with teacher librarian, resource-based learning consultant, colleagues, and knowledgeable community members, gather and evaluate resources in all subject areas that portray human diversity in all its forms in positive, accurate, and respectful ways. Incorporate these as appropriate into units in all subject areas (Aboriginal Content and Perspectives, Gender Equity, Multicultural Education, Special Education, Resource-based Learning).
Middle Level (Grades 6-9)	Develop unit/s that incorporate a variety of instructional strategies that develop understanding of major concepts and use authentic assessment techniques. Develop and implement a yearly plan that maximizes opportunities for Resource-Based Learning and incorporates Communication (CE.L.) strategies that help students learn the most from their resources.	Develop units that incorporate opportunities for students to recognize the importance of respecting evidence, truth, and the views of others when engaging in discussions (Critical and Creative Thinking, Personal and Social Values and Skills, C.E.L.s). Develop units in various subjects that incorporate positive, accurate, and respectful portrayals of all forms of human diversity. Enlist the assistance of your teacher librarian, resource-based learning consultant, other colleagues, and/or knowledgeable community members (Aboriginal Content and Perspectives, Gender Equity, Multicultural Education, Special Education, Resource-based Learning).
Secondary Level (Grades 10-12)	Develop unit/s that incorporate a variety of instructional strategies that develop understanding of major concepts, use authentic assessment techniques, and develop further students' Critical and Creative Thinking (C.E.L.) abilities. Develop and implement a yearly plan that maximizes opportunities for Resource-Based Learning and incorporates Communication (C.E.L.) and Independent Learning (C.E.L.) strategies that help students learn the most from their resources.	Incorporate into classroom lessons and instructional units opportunities for students to use moral reasoning as a basis for examining arguments, making decisions, and taking actions related to various issues and topics (Personal and Social Values and Skills, C.E.L.). Develop units in various subjects that incorporate positive, accurate, and respectful portrayals of all forms of human diversity. Enlist the assistance of your teacher librarian, resource-based learning consultant, other colleagues, and/or knowledgeable community members (Aboriginal Content and Perspectives, Gender Equity, Multicultural Education, Special Education, Resource-based Learning).

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